



# Washington State Enhanced Hazard Mitigation Plan

## Mitigation Strategy

**Requirement 44 CFR §201.4(c)(3): *Plan Content.*** To be effective the plan must include a *Mitigation Strategy* that provides the State's blueprint for reducing the losses identified in the risk assessment.

### Introduction

In updating this plan, the State Hazard Mitigation Advisory Team (SHMAT) reviewed the mission of the State Hazard Mitigation Plan (SHMP), and its goals, objectives, and mitigation actions and initiatives – the mitigation action agenda.

The goals and objectives for hazard mitigation guided development of the initial action agenda for the 2004 and 2007 plans, as well as for the revised action agenda in this 2010 updated plan. They foster a vision for hazard mitigation and disaster resistance throughout the state government of Washington.

In general, the mitigation action agenda addresses or solves statewide mitigation issues or problems rather than identifying which state facilities require seismic retrofit, for example. State agencies participating in the review and revision of this plan developed the mitigation actions in the action agenda that begins at the end of the section. Those mitigation action items completed have been removed from the body of this section, and are placed in Tab 13, the *Annex* portion of the plan (Annex 3). The action items for South Puget Sound College (Annex 4) have been removed as the college has elected to become part of Thurston County's Plans. The action items formerly within the State's plan are now part of the College's annex within the Thurston County HMP. All tables, charts and funding information have been updated for the 2010 plan edition to the most current data available.

**Mission of the State Hazard Mitigation Plan** – Reduce the adverse impacts and losses caused by natural hazard events.

## Mitigation Strategy

### I. Hazard Mitigation Goals

---

**Requirement 44 CFR §201.4(c)(3)(i): *Plan Content.*** To be effective the plan must include a *Mitigation Strategy* section that includes a description of the State goals to guide the selection of activities to mitigate and reduce potential losses.

#### State Mitigation Goals and Objectives

---

**Goal 1: Protect Life.**

- Objective (Obj.) 1.1 – Improve systems that provide warning and emergency communications.
- Obj. 1.2 – Develop or amend laws so they effectively address hazard mitigation.
- Obj. 1.3 – Reduce the impacts of hazards on vulnerable populations.
- Obj. 1.4 – Strengthen state and local building code enforcement.
- Obj. 1.5 – Train emergency responders.

**Goal 2: Protect Property.**

- Obj. 2.1 – Protect assets, particularly critical assets.
- Obj. 2.2 – Protect and preserve facility contents.
- Obj. 2.3 – Reduce repetitive and severe repetitive losses, including those caused by flooding.

**Goal 3: Promote a Sustainable Economy.**

- Obj. 3.1 – Provide incentives for mitigation initiatives.
- Obj. 3.2 – Continue critical business operations.
- Obj. 3.3 – Form partnerships to leverage and share resources.

**Goal 4: Protect the Environment.**

- Obj. 4.1 – Develop hazard mitigation policies that protect and improve the environment.

**Goal 5: Increase Public Preparedness for Disasters.**

- Obj. 5.1 – Improve the understanding of natural hazards and the risk they pose.
- Obj. 5.2 – Improve hazard information, including databases and maps.
- Obj. 5.3 – Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events.
- Obj. 5.4 – Develop new policies to enhance hazard mitigation initiatives.

The SHMAT reviewed the goals and objectives of this plan in its May 2009 meeting. The goals were again confirmed as the goals under which the SHMP would be developed, with a few minor revisions for clarity. (E.g., Goal 5, Obj. 5.1 formerly read

## Mitigation Strategy

“Understand natural hazards and the risk they pose,” but was modified to read “Improve the understanding of natural hazards and the risk they pose.”)

The review was made taking the following into account:

- Progress by state agencies on mitigation actions in the 2008 state plan.
- Identification of mitigation goals and objectives in the hazard mitigation plans of the state’s fastest-growing counties (for more details, see Planning Process, Tab 2 – Analysis of Local Plans’ Mitigation Goals).

Following this review, the SHMAT reaffirmed the plan’s five goals and their objectives with minor revisions as stated previously.

## II. State Capability Assessment

---

**Requirement 44 CFR §201.4(c)(3)(ii): *Plan Content.*** To be effective the plan must include a *Mitigation Strategy* section that includes a discussion of the State’s pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including:

- An evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas.
- A discussion of State funding capabilities for hazard mitigation projects.

Reducing hazards has long been a priority of the State of Washington. In the 1950s, earthquake construction standards were established in state law for schools, hospitals and places of public assembly for 300 or more people (RCW 70.86) and assistance made available to local jurisdictions for flood control projects and planning. More recently, the Growth Management Act (GMA) of 1990 requires all cities, towns and counties to identify and protect critical areas, such as frequently flooded areas and geologically hazardous areas, and for the fastest-growing counties (and their cities) to develop comprehensive land use plans to limit growth to identified urban growth areas.

Among the best examples of hazard mitigation in state government are the GMA, the Flood Control Assistance Account Program (FCAAP), the Transportation Partnership Account (TPA), and the FEMA-funded (with State and Local matching funds) state-administered Hazard Mitigation Assistance programs; however, a myriad of other programs, funding sources, executive orders, and interagency agreements have elements that support or facilitate hazard mitigation. These programs are discussed later in this section.

In addition to the above, in 2003, the Legislature approved a measure for adoption of the International Codes (I-Codes) for building, residential, fire, and mechanical codes that take into account the current seismic risk and other hazard factors. These

## Mitigation Strategy

measures are incorporated within RCW 19.27.031, and include the International Building Codes. The codes took effect statewide initially in July 2004, and are tri-annually updated by the International Code Council (ICC). Once the new editions of the codes are available, the Washington State Building Code Council (SBCC) reviews and adopts the codes (further discussed [below](#)). The SBCC has also adopted the 2006 and 2009 versions of the I-Codes once they became available. In addition to adopting the I-Codes, the SBCC also adopts other types of codes (and amendments to the I-Codes) to enhance building regulations to account for conditions unique to our state.

Staff from the Mitigation and Recovery Section of the State EMD worked with SHMAT and state agencies to evaluate the state regulations, policies and state-funded or administered programs that include a hazard mitigation component or benefit hazard mitigation activities to develop a better understanding of state government activities related to hazard mitigation. The state hazard mitigation capability matrix, [below](#), is the result of this effort. However, additional regulations are also incorporated into other portions of the SHMP, such as the Loss Avoidance Study, the Enhanced portion of the plan, and the Coordination of Local Planning.

### *Changes in the State's Hazard Management Capabilities*

In reviewing state laws and regulations as well as state-administered programs with a hazard mitigation component, EMD Mitigation and Recovery Section staff found that the state's hazard management capabilities improved somewhat from April 2007 through January 2010. For example, since approval of the 2007 state plan:

- Several of the communities required to update their Critical Areas Ordinances (see narrative [below](#) on the GMA) by 2008 have done so. Many ordinances originally were prepared in the 1990s, and had not been reviewed or updated. While progress has been made in updating these regulations, the rate of completion is behind the original schedule required by state law. As of January 2010, only 92 percent of jurisdictions required to have their critical areas regulations completed by the end of 2004 had done so. The completion percentage drops to 69 percent for 2005 jurisdictions; 38 percent for 2006 jurisdictions, and 27 percent for 2007 jurisdictions (note: in March 2010, the Legislature gave most of the 2007 jurisdictions a three-year extension to the end of 2010 to complete their updates). In updating their ordinances, communities must use a concept known as *best available science* to identify critical areas, which include frequently flooded areas and geologically hazardous areas. The jurisdictions are required to write regulations designed to protect these areas and limit the types of development which can occur in those areas. Depending upon the type and scale of development in these areas, mitigation actions are required to limit the threat to public safety and prevent property damage.
- Funding for the FCAAP (see narrative [below](#)) was restored in the 2007-09 state budget to the level required by state law. The program, administered by the Department of Ecology (Ecology), helps local governments with flood-hazard

## Mitigation Strategy

reduction plans and projects. Ecology provided \$2.7 million for FCAAP grants during the 2007-09 biennium. This included the acquisition of some flood-prone properties, including an aging manufactured home park which was the primary flooding problem in its community. These properties will all be maintained as open space in perpetuity to provide flood storage and reduce flood velocities.

- Funding became available from the Transportation Partnership Account (TPA) (see narrative [below](#)) which was created by the Legislature in 2005 to fund various transportation projects throughout the state. Of the total funding from that account, \$2.98 billion was allocated to the *at-risk structures* category of projects, including a bridge seismic retrofit program, and replacement of the Alaskan Way Viaduct.
- On July 1, 2004, the 2003 editions of the I-Codes for building, residential, fire, and mechanical codes took affect statewide following approval by the Legislature and adoption by the State Building Code Council (SBCC). The 2006 editions of those codes were adopted to take effect on July 1, 2007. Community planning departments and buildings officials administer the codes locally and can amend the state building code as long as it does not diminish the minimum performance standards of the state code. Two of the state's largest cities, Seattle and Tacoma, have adopted codes that require stricter minimum performance standards. In November of 2009, the SBCC adopted the 2009 editions of the I-Codes for the codes, to include: the Building, Residential, Mechanical and Fire I-Codes; the 2009 Uniform Plumbing Code, published by the International Assoc of Plumbing and Mechanical Officials (IAPMO); and the Washington State Energy Code. The Energy code is a unique state code (Washington State Energy Code WAC 51-11). Additionally, in an effort to increase floodplain mitigation, FEMA, the Structural Engineering Institute (SEI) of the American Society of Civil Engineers (ASCE) and other organizations, developed minimum requirements for flood-resistant design and construction of buildings. These were integrated into previous editions of the I-Codes and met the minimum regulations for design and construction necessary for NFIP compliance. During 2009, an amendment in the IRC was created requiring freeboard above base flood elevation in single family homes as follows: buildings or structures in flood hazard areas not designated as Coastal A zones, shall have the lowest floor elevated to or above the design flood elevation, or a greater elevation as designated by local ordinance.

Additionally, in 2009 the SBCC adopted the International Existing Building Code (IEBC) I-Code as an appendix chapter available for local adoption (WAC 51-50-480000). The IEBC has performance criteria for seismic forces and requires seismic upgrades where 30 percent of a building roof or floor area is involved in an alteration. It also conducted a technical group on the Wildland and Urban Interface Code (WUIC) and has recommended adoption as an appendix to the fire code. Local jurisdictions may adopt the code effective July 1, 2010.

## **Mitigation Strategy**

- The availability of an annual source of federal mitigation grant funds has increased the mitigation projects funded in Washington State. Since it became available in 2002, the Pre-Disaster Mitigation Program (PDM) has funded about \$19.3 million in mitigation plans (28) and projects (19) in the state through FFY 2009. Additionally, the Flood Mitigation Assistance (FMA) and Hazard Mitigation Grant Program (HMGP) have been very helpful in making funds available for mitigation projects in the state. The tables on the following two pages provide a summary of all the funding by jurisdiction (includes the Federal, State and Local shares) made available through these programs from 2005 to 2009.

## Mitigation Strategy

### FEMA HAZARD MITIGATION GRANT ASSISTANCE – TOTAL PROJECT COSTS AWARDED 2005-2009 (Includes Federal, State, and Local Shares)

| Jurisdiction      | HMGP-1641/<br>1671/1682 | PDM 05/06   | HMGP-1734   | PDM/FMA<br>07/08/09 | HMGP-1817   | Total Funding | Flooding | Earthquake | Other<br>Hazards | Acquisition | Elevation | Seismic<br>Retrofit | Other Project<br>Types | Total Projects |
|-------------------|-------------------------|-------------|-------------|---------------------|-------------|---------------|----------|------------|------------------|-------------|-----------|---------------------|------------------------|----------------|
| Washington State  | \$949,039               |             |             | \$828,317           |             | \$1,777,356   |          | X          |                  |             |           | 2                   |                        | 2              |
| Clark             |                         | \$368,066   |             |                     |             | \$368,066     | X        |            |                  |             |           |                     | 1                      | 1              |
| City of Kalama    |                         | \$340,000   |             |                     |             | \$340,000     | X        |            |                  |             |           |                     | 1                      | 1              |
| Grays Harbor      |                         |             | \$82,500    |                     |             | \$82,500      | X        |            |                  |             | 1         |                     |                        | 1              |
| Port Townsend     | \$858,591               |             | \$878,186   | \$1,026,415         |             | \$2,763,192   |          | X          |                  |             |           | 4                   |                        | 4              |
| King              | \$2,551,581             | \$1,616,130 | \$2,519,800 | \$1,063,265         | \$2,065,622 | \$9,816,398   | X        |            |                  | 5           | 5         |                     | 1                      | 11             |
| Issaquah          |                         | \$522,210   |             |                     | \$888,455   | \$1,410,665   | X        |            |                  |             | 1         |                     | 1                      | 2              |
| Renton            |                         |             |             | \$479,279           |             | \$479,279     |          | X          |                  |             |           | 1                   |                        | 1              |
| Seattle           | \$1,980,000             | \$713,229   |             |                     |             | \$2,693,229   |          | X          |                  |             |           | 4                   |                        | 4              |
| Snoqualmie        | \$1,618,586             |             | \$951,264   |                     | \$1,441,605 | \$4,011,455   | X        |            |                  |             | 4         |                     |                        | 4              |
| West Sound UD     | \$234,300               |             |             |                     |             | \$234,300     |          | X          |                  |             |           | 1                   |                        | 1              |
| Centralia         |                         |             | \$1,894,706 |                     | \$485,307   | \$2,380,013   | X        |            |                  | 1           | 1         |                     |                        | 2              |
| Chehalis, City of |                         |             | \$674,791   |                     |             | \$674,791     | X        |            |                  | 1           |           |                     |                        | 1              |
| Chehalis Tribe    |                         |             | \$286,236   |                     |             | \$286,236     | X        |            |                  | 1           | 1         |                     |                        | 2              |
| Pierce            | \$3,794,149             |             | \$396,442   | \$554,008           | \$1,215,523 | \$5,960,122   | X        |            |                  | 7           |           |                     |                        | 7              |
| Bethel SD         |                         |             | \$555,172   |                     |             | \$555,172     |          | X          |                  |             |           | 1                   |                        | 1              |
| Eatonville        |                         |             |             | \$452,500           |             | \$452,500     |          |            | X                |             |           |                     | 1                      | 1              |

## Mitigation Strategy

### FEMA HAZARD MITIGATION GRANT ASSISTANCE – TOTAL PROJECT COSTS AWARDED 2005-2009 (continued) (Includes Federal, State, and Local Shares)

| Jurisdiction       | HMGP-1641/<br>1671/1682 | PDM 05/06    | HMGP-1734    | PDM/FMA<br>07/08/09 | HMGP-1817   | Total Funding | Flooding | Earthquake | Other<br>Hazards | Acquisition | Elevation | Seismic<br>Retrofit | Other project<br>Types | Total Projects |
|--------------------|-------------------------|--------------|--------------|---------------------|-------------|---------------|----------|------------|------------------|-------------|-----------|---------------------|------------------------|----------------|
| Pacific Lutheran U |                         |              | \$2,526,753  |                     |             | \$2,526,753   |          | X          |                  |             |           | 2                   |                        | 2              |
| Sumner             | \$616,600               |              |              |                     |             | \$616,600     | X        | X          |                  |             | 1         | 1                   |                        | 2              |
| Skagit             | \$147,500               |              | \$1,093,168  |                     | \$111,560   | \$1,352,228   | X        | X          | X                | 1           |           | 1                   | 1                      | 3              |
| Anacortes          |                         | \$637,500    |              |                     |             | \$637,500     |          | X          |                  |             |           | 1                   |                        | 1              |
| Concrete           |                         |              |              |                     | \$776,503   | \$776,503     |          |            | X                | 1           |           |                     |                        | 1              |
| Hamilton           |                         |              |              | \$873,531           |             | \$873,531     | X        |            |                  | 1           |           |                     |                        | 1              |
| Snohomish          |                         |              |              | \$457,187           |             | \$457,187     | X        |            |                  |             | 1         |                     |                        | 1              |
| Edmonds            |                         | \$6,248,395  |              |                     |             | \$6,248,395   |          | X          |                  |             |           | 2                   |                        | 2              |
| Everett            |                         |              |              | \$1,495,909         |             | \$1,495,909   |          | X          |                  |             |           | 1                   |                        | 1              |
| City of Snohomish  | \$747,370               |              |              |                     |             | \$747,370     | X        |            |                  |             | 1         |                     |                        | 1              |
| Stillaguamish FCD  |                         | \$175,000    |              |                     |             | \$175,000     | X        |            |                  |             |           |                     | 1                      | 1              |
| Sultan             | \$278,400               |              |              |                     |             | \$278,400     | X        |            |                  | 1           |           |                     |                        | 1              |
| Thurston           |                         | \$1,508,325  |              |                     |             | \$1,508,325   | X        |            |                  |             |           |                     | 1                      | 1              |
| Evergreen State    |                         |              | \$1,055,600  |                     | \$1,456,453 | \$2,512,053   |          | X          |                  |             |           | 2                   |                        | 2              |
| Whatcom            |                         |              |              |                     | \$450,490   | \$450,490     | X        |            |                  | 2           |           |                     |                        | 2              |
| Yakima             | \$160,000               |              |              |                     |             | \$160,000     | X        |            |                  |             |           |                     | 1                      | 1              |
| TOTALS             | \$13,936,116            | \$12,128,855 | \$12,914,618 | \$7,230,411         | \$8,891,518 | \$55,101,518  |          |            |                  | 21          | 16        | 26                  | 9                      | 69             |



## Mitigation Strategy

### *State Programs with Hazard Mitigation Component*

Growth Management Act – This state law (RCW 36.70A) requires all cities, towns and counties in the state to identify critical areas, and to establish regulations to protect and limit development in those areas. Among the critical areas defined by state law are frequently flooded areas (floodplains, and areas potentially impacted by tsunamis and high tides driven by strong winds) and geologically hazardous areas (those areas susceptible to erosion, landslide, seismic activity, or other geological events such as coalmine hazards, volcanic hazard, mass wasting, debris flows, rock falls, and differential settlement).

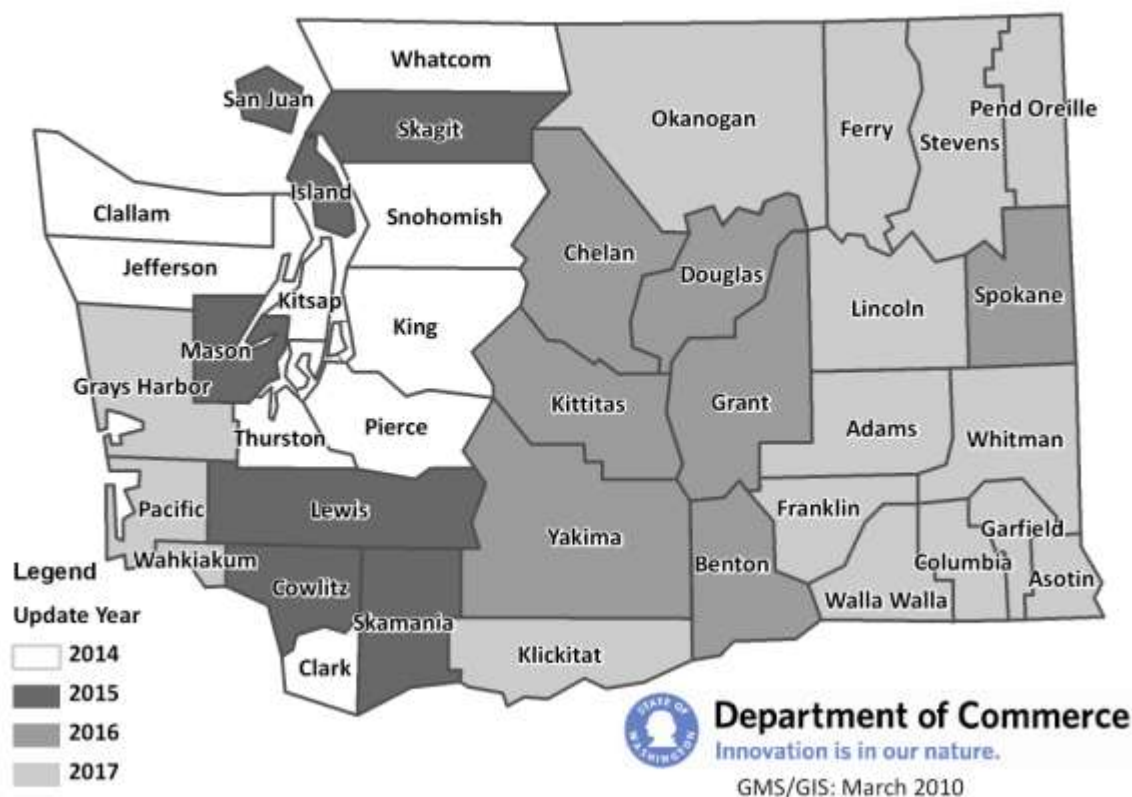
Guidance provided to local government states that critical areas protection programs should address a number of issues, including:

- Protecting members of the public, public resources and facilities from injury, loss of life, or property damage due to landslides and slope failures, erosion, seismic events, volcanic eruptions, or flooding.
- Maintaining healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment.
- Directing activities not dependent on critical areas resources to less ecologically sensitive sites, and mitigating unavoidable impacts to critical areas by regulating alterations in and adjacent to those areas.
- Preventing cumulative adverse environmental impacts to frequently flooded areas.

Since 1995, local governments must consider best available science in their identification and protection of critical areas; a catalog of sources of best available science has been prepared for their use. (Note: Initial critical area regulations, developed in the early 1990s, were not prepared to the best available science standard.) Legislation passed in 2003 requires cities, towns and counties to review and revise as necessary their critical areas policies every seven years (the 2010 Legislature extended the current update cycle to ten years due to the severe economic downturn and resulting budget cuts). All jurisdictions were required to have updated critical areas regulations by the end of 2007. However, due to the extensive amount of work involved in this update process, as well as the current state of economy and its impacts on staffing, the Legislature extended the due dates for the revisions to the end of 2010 for some of the jurisdictions (slow growing and small jurisdictions). The graphic on the next page details the current state of planning for both the GMA and Critical Areas Ordinance within Washington.

## Mitigation Strategy

GMA Update Schedule: RCW 36.70A.130(4)



Source: Washington Department of Commerce (via direct correspondence with Sam Wentz May 2010)

The GMA also allows those cities, towns and counties required or voluntarily choosing to develop comprehensive plans to add an optional natural hazard reduction element to those plans. To facilitate the development of natural hazard reduction elements, the Department of Commerce – Growth Management Services used an HMGP grant to develop and publish a guidebook on how to incorporate natural hazard reduction into local land-use plans. This guidebook is available at the following website:

[www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&alias=CTED&lang=en&ItemID=879&Mid=944&wversion=Staging](http://www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&alias=CTED&lang=en&ItemID=879&Mid=944&wversion=Staging)

**Flood Control Assistance Account Program** – This program, administered by the Department of Ecology (Ecology), assists local governments in reducing flood hazards and damages by providing technical and financial assistance in the development and implementation of comprehensive flood hazard management plans, engineering feasibility studies, physical flood damage reduction projects, acquisition of flood-prone properties, public awareness programs, flood warning systems, and other emergency projects to protect human life and property from flood related events. Eligible local entities must be within a jurisdiction that participates in the National Flood Insurance Program (NFIP). Per RCW 86.26.007, the account is provided \$4 million per biennium for grants for these activities. However, this amount can be reduced by legislative action

## Mitigation Strategy

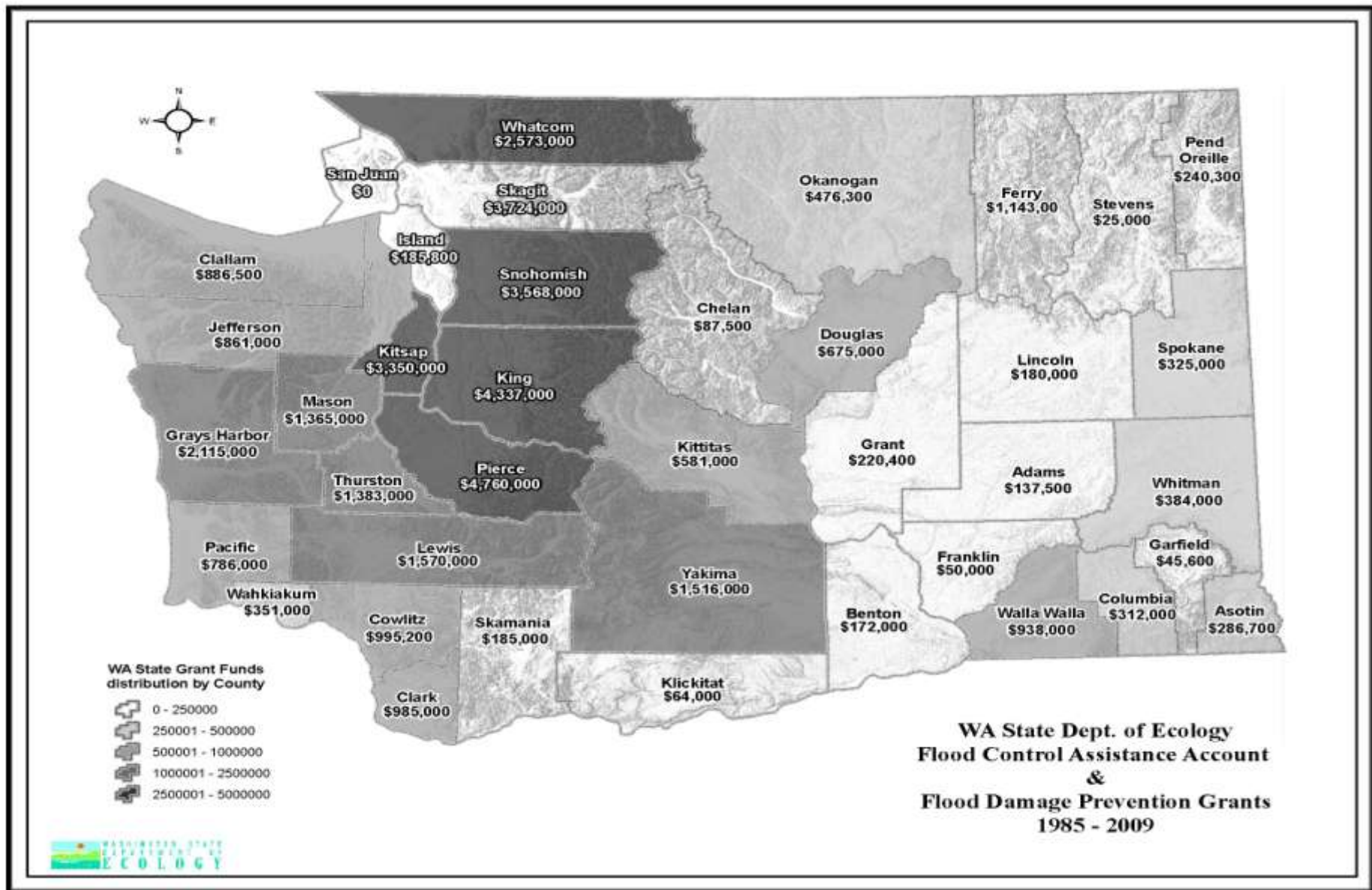
as is described below. FCAAP also provides current and consistent information on flooding and flood hazard areas, including improved maps and mapping tools. Ecology is partnering with FEMA in the RiskMAP program to effectively utilize flood mapping resources in conducting accurate risk assessments and communicating the risks to communities. Additionally, it provides assistance in developing methods and strategies to address local floodplain management objectives and assistance to assure effective compliance with state and federal regulations.

State budget reductions were implemented for the present biennium, 2009-11, that cut FCAAP funding by 50%. This, effectively, eliminated the competitive grant portion of FCAAP, leaving less than \$400,000 for emergency projects. These emergency funds were awarded to two emergency projects in 2009: one to Yakima County to assist in acquiring two structures under imminent threat of destruction by flood because of a massive landslide which altered the course of the Naches River and the second to King County for a project to prevent potential flood waters from entering a hazardous waste site threatened by flooding from the Green River because of the reduced flood control capacity of the Howard Hanson Dam.

Despite the FCAAP funding reduction Ecology received some special appropriations from the Legislature for 2009-11 in the capital budget to be used for flood hazard mitigation. The City of Kent in King County was provided with a grant for \$10 million to assist them in enhancing a levee section on the Green River. The objective of this project was to improve flood protection by rehabilitating certain levee sections and enhancing the entire system that protect the city. A portion of the funding will be used to acquire properties that will allow for the levee to be reconfigured as a setback levee to reduce velocities, increase capacity, and improve habitat functions. An additional \$1.35 million was provided to fund flood hazard mitigation projects according to specified legislative criteria, including priority for communities least able to fund such projects and most ready to proceed. This resulted in Ecology awarding grants for 13 projects in 12 communities. The cities and counties will use these funds for various purposes such as acquiring flood-prone properties, installing watertight lids to prevent stormwater infiltration into local sewer systems, and removing levees to improve flood protection and restore natural stream functions.

The depiction below demonstrates the funding provided by this program since 1985.

## Mitigation Strategy



Source: Washington Department of Ecology (via direct correspondence with Jerry Franklin, Department of Ecology, May 2010)

## Mitigation Strategy

2005 Transportation Partnership Account (TPA) – The TPA is a revenue generation and expenditure plan that funds 274 transportation projects across the state over a 16-year period. The revenue comes from a combination of taxes on transportation related items, including gasoline taxes. The expenditure plan allocated a total of \$2.98 billion towards projects with a hazard mitigation element, including the seismic retrofit or replacement of existing bridges and structures that are vulnerable to earthquakes. In 2007, the State Department of Transportation began work on the portion of the bridge seismic retrofit program that was allocated \$87 million in funds from TPA. This program is focused on strengthening the support columns of bridges in the Central Puget Sound region to make them more resistant to earthquake damage.

The TPA provides \$2 billion in funds for the replacement of the Alaskan Way Viaduct (State Route 99). The Alaskan Way Viaduct is an elevated roadway running along the City of Seattle's waterfront, and accounts for approximately 25 percent of the traffic through the downtown area. After the 6.8 magnitude Nisqually earthquake in 2001, the viaduct was damaged and temporarily shut down. A team of experts concluded that the existing structure could not be adequately retrofitted and had to be replaced. With work scheduled to begin in the summer of 2010, the eventual replacement of the viaduct will result in a new and earthquake-resilient segment of the arterial system through the State's most populous city.

Additionally, the TPA provides \$891 million towards replacing the oldest and most vulnerable bridges, including \$500 million towards the State Route 520 floating bridge. The existing State Route 520 floating bridge system that crosses Lake Washington is vulnerable to failure during severe windstorms and earthquakes. The new bridge system is designed to withstand effects from winds up to 92 mph and a 1,000-year earthquake.

The table below provides a summary of the status of the Bridge Seismic Retrofit Program. To date nearly \$100 million has been invested in the program since 1991, and the TPA continues to provide additional funding to support the program.

Bridges in the Seismic Retrofit Program as of February 2010

|                        |     |
|------------------------|-----|
| Completely Retrofitted | 246 |
| Partially Retrofitted  | 140 |
| Needing Retrofitting   | 481 |
| Under Contract         | 14  |
| Total                  | 881 |

Source: WSDOT Bridge Office, May 2010, available at:  
<http://www.wsdot.wa.gov/Bridge/Reporting/SeismicRetrofitProgram.htm>

## Mitigation Strategy

Federal Hazard Mitigation Assistance Programs – The Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance Program (FMA), and the PDM Program have been the state's best and most significant tools for hazard mitigation in recent years. Since April 1989, the HMGP has provided an aggregate investment of more than \$119.7 million for planning and projects designed to reduce or eliminate hazard-caused damage throughout the state. HMGP has funded a wide range of hazard-reduction projects, ranging from strengthening water towers so they do not fall during earthquakes, to the purchase of repetitive flood-loss properties.

The PDM (est. \$19.3 million) and the FMA (est. \$2.1 million) have helped fund several mitigation projects and development of hazard mitigation and flood plans throughout the state. Additionally, several local jurisdictions have invested their Emergency Management Performance Grant funds in hazard mitigation planning.

The state's Administrative Plan for these three hazard mitigation programs requires all construction-related mitigation projects to support the mitigation goals in the state's hazard mitigation plan. Additionally, beginning with the November 2006 flood disaster DR-1671, the state required recipients of HMGP planning grants eligible to join the NFIP to do so if they were not already members, and remain "in good standing" in the program. Without such membership and standing, the applicant could not obtain a project grant from any of the federally funded mitigation programs.

The state's Administrative Plan and associated hazard mitigation project applications encourage the mitigation of properties subject to repetitive losses. Applications receive extra points in the adjudication process if they mitigate repetitive loss properties (including, but not limited to repetitive losses due to flooding). Recently funded flood mitigation projects include:

- FY07 FMA – King County elevation project; six of nine properties are repetitive loss properties, one of which is a severe repetitive loss property (all nine homes have been successfully elevated)
- FY07 PDM – Snohomish County elevation project, four of four are repetitive loss properties (all four homes have been successfully elevated)
- FY09 PDM – King County elevation project; two of the four properties are repetitive loss properties, one of which is a severe repetitive loss property

*Repetitive Flood Claims (RFC) and Severe Repetitive Loss (SRL)* – The State has not received any applications for these two programs to date. The RFC program requires that neither the applicant nor the subapplicant be able to meet the FMA non-Federal share requirement. So far, this has not been applicable to any jurisdictions in the state. The SRL program is a relatively new program and requires a very involved and detailed consultation process with the prospective homeowners. Before actively soliciting applications, the State Hazard Mitigation staff intend to schedule some FEMA-led training sessions for local jurisdictions in the management of the program. Once accomplished, this program could be an excellent source of additional funding for flood

## Mitigation Strategy

mitigation activities. See [below](#) for a more in depth discussion of the State's plans to access these programs.

### *State Hazard Mitigation Capability Matrix*

The matrix below identifies the most significant state funded or state administered programs, policies, regulations or practices related to hazard mitigation or loss reduction. Many of the listed programs provide funding for various hazard mitigation activities.

State law (Revised Code of Washington, or RCW) and implementing regulations (Washington Administrative Code, or WAC) are cited for state programs in listings below.

Other state and federal programs or initiatives may support or facilitate hazard mitigation or loss reduction. Information on these programs can be found on the website maintained by the State Infrastructure Assistance Coordinating Council, [www.infracapacity.org](http://www.infracapacity.org).

#### Definitions:

*Support loss reduction* – Programs, plans, policies, regulations, funding or practices that help implement mitigation measures.

*Facilitate loss reduction* – Programs, plans, policies, etc., that make implementing mitigation measures easier.

*Hinder loss reduction* – Programs, plans, policies, etc., that pose obstacles to implementing mitigation measures.

## Mitigation Strategy

### 2010 State Mitigation Capability Assessment

| Agency   | Programs, Plans, Policies, Regulations, Funding or Practices                               | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description  |
|--|--|------------------------------|------------|--------|---|--|
|  |  | Support                      | Facilitate | Hinder |   |  |
| Department of Commerce, Growth Management Services | Critical Areas Ordinance (RCW 36.70A, WAC 365-190-080)                                     | X                            |            |        | Yes, for developing plans and regulations   | Growth Management Act requires all cities and counties in the state to identify critical areas including frequently flooded areas and geologically hazardous areas, and to establish regulations that limit development in those areas.  |
|  | Critical Areas Ordinance – One-hundred year floodplain element (RCW 36.70A.110)            | X                            |            |        |   | Growth Management Act, as amended, prohibits expansions of urban growth areas into one-hundred year floodplains. A county, city, or town is generally prohibited from expanding an urban growth area into the 100-year floodplain of any river or river segment that is located west of the Cascade Mts and has a mean annual flow of 1,000 or more cubic feet per second, except under certain specified circumstances. |
|  | Natural Hazard Reduction Element of Local Comprehensive Plan (RCW 36.70A, WAC 365-190-080) |                              | X          |        |   | Growth Management Act allows local planning jurisdictions to add optional elements to their comprehensive land-use plans, including an element dealing with natural hazard reduction.  |



## Mitigation Strategy

| Agency  | Programs, Plans, Policies, Regulations, Funding or Practices | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description   |
|---|--|------------------------------|------------|--------|---|---|
|   |  | Support                      | Facilitate | Hinder |   |   |
| Department of Commerce, State Building Code Council | State Building Code (RCW 19.27, WAC 51)                      | X                            |            |        |   | State Building Code Act adopted in 1974; set 1973 UBC codes as statewide minimum. The Legislature approved use of the IBC 2003 building codes during the 2003 legislative session. The State Building Code Council is responsible for code adoptions, which take effect in July every three years: 2004, 2007, 2010. The adopted IEBC has performance criteria for seismic forces and requires seismic upgrades where 30 percent of a building roof or floor area is involved in an alteration. |
|   | Earthquake Construction Standards (RCW 70.86)                |                              |            | X      |   | Approved in 1955. Requires newly constructed schools, hospitals, and places of public assembly to withstand a lateral force of 5 percent of the building weight. Law did not keep up with changes in code criteria; outdated by time 1973 building codes adopted. Remains on the books.   |
| Department of Commerce, Local Government Division   | Community Development Block Grant (CDBG) programs            |                              | X          |        | Yes   | Several of the seven CDBG programs fund projects in eligible communities that improve, repair or rehabilitate housing or infrastructure systems to meet urgent needs or to deal with an imminent threat to public health and safety.  |

## Mitigation Strategy

| Agency                                     | Programs, Plans, Policies, Regulations, Funding or Practices                                  | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description   |
|--|---|------------------------------|------------|--------|---|---|
|  |   | Support                      | Facilitate | Hinder |   |   |
| Department of Commerce, Public Works Board | Public Works Trust Fund – Construction Loans, Emergency Loans (RCW 43.155, WAC 399-30)        |                              | X          |        | Yes   | Trust fund construction loans allow for rehabilitation and reconstruction of eligible public works systems.   |
| Department of Ecology                      | Flood Control Assistance Account Program (RCW 86.26, WAC 173-145)                             | X                            |            |        | Yes   | Provides financial assistance to local agencies to prepare comprehensive flood control management plans and flood control maintenance projects.   |
|  | Floodplain Management Act (RCW 86.16, WAC 173-158).   | X                            |            |        |   | Requires development to avoid the floodway and minimize harm to floodplains and wetlands.   |
|  | Shoreline Management Act (RCW 90.58, WAC 173-18 and -20).                                     |                              | X          |        | Yes   | Citizens passed the Shoreline Management Act in 1971 to restrict development in shoreline areas to “reasonable and appropriate uses” and to protect shoreline resources and aquatic life. |
|  | Coastal Zone Management Act (PL 104-150). Section 306/306A supports Shoreline Management Act. |                              | X          |        | Yes   | Grant funds are available to eligible local governments for planning, environmental inventories, land-use designation mapping, and policy development related to shorelines.              |

## Mitigation Strategy

| Agency                          | Programs, Plans, Policies, Regulations, Funding or Practices                     | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description  |
|---------------------------------|--|------------------------------|------------|--------|---|--|
|                                 |  | Support                      | Facilitate | Hinder |   |  |
| Department of Ecology           | Water Resources Program – Drought Response (RCW 43.83B.400 to -430, WAC 173-166) | X                            |            |        | Yes   | Provides emergency water permits, financial assistance and temporary transfer of water rights during a state-declared drought emergency.       |
|                                 | Emergency Agricultural Water Supply Funds (RCW 43.83B.415, WAC 173-166)          | X                            |            |        | Yes   | Provides grants and loans for emergency water supply projects in declared drought areas to help irrigated crops and fisheries survive.         |
|                                 | Salmon Recovery Funding Board (RCW 77.85)  | X                            |            |        | Yes   | Provides grants to protect and restore salmon habitat which includes acquisition of land in floodplains.                                       |
| Department of Natural Resources | Forest Practices Act (RCW 76.09, WAC 222).                                       |                              | X          |        |   | Among other things, the act requires owners of forestlands to prevent landslides caused by logging or other uses.                              |
|                                 | Division of Geology and Earth Resources (State Geological Survey)                |                              | X          |        |   | Evaluates geologic hazards, develops hazard maps, conducts damage assessment following disasters, and provides advice on mitigation measures.  |
|                                 | Firewise Program   | X                            |            |        |   | Provides homeowners and communities with information on how best to protect their homes and facilities from the risk of wildland fire.         |
|                                 | Forest Stewardship Program (FSP)   | X                            |            |        | Yes   | Helps family forestland owners with hazard reduction training and funding to assist with thinning and other actions to reduce wildfire hazard. |

## Mitigation Strategy

| Agency  | Programs, Plans, Policies, Regulations, Funding or Practices  | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description  |
|---|---|------------------------------|------------|--------|---|--|
|   |   | Support                      | Facilitate | Hinder |   |  |
| University of Washington, and various partner organizations | Pacific Northwest Seismic Network   |                              | X          |        |   | Operates network of seismographs whose data help scientists understand Pacific Northwest earthquake hazards and predict volcanic eruptions at Mount St. Helens. Network scientists are active in public outreach and education for these hazards.  |
| Governor's Office   | Evaluation of Flood Hazard in Locating State Facilities, and Reviewing and Approving Sewage and Water Facilities and Subdivisions, Executive Order 77-11. | X                            |            |        |   | Requires state agencies to avoid locating and building state facilities, roads, and campgrounds in floodplains, requires agencies to flood proof existing facilities, and to consider reduction of potential flood damage when reviewing plans for water and wastewater facilities and residential subdivisions and trailer parks. |
|   | State Agency Risk Management, Executive Order 01-05   |                              | X          |        |   | Requires state executive agencies to reduce and minimize loss from tort claims against the state; it includes language that could apply to reducing threats posed by natural hazards through mitigation.   |
|   | Sustainable Practices by State Agencies, Executive Order 02-03.   |                              | X          |        |   | Requires state executive agencies to establish sustainability objectives regarding facility construction, operation and maintenance; it includes language that could apply to reducing threats posed by natural hazards through mitigation.  |

## Mitigation Strategy

| Agency  | Programs, Plans, Policies, Regulations, Funding or Practices                           | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description   |
|---|--|------------------------------|------------|--------|---|---|
|   |  | Support                      | Facilitate | Hinder |   |   |
| Military Department (Emergency Management Division) | Hazard Mitigation Grant Program  | X                            |            |        | Yes   | This program, available after a Presidential disaster declaration, funds hazard mitigation plans and cost-effective projects that reduce or eliminate the effects of hazards and/or vulnerability to future disaster damage. Typically, the state provides a portion of the required non-federal match. |
|   | Public Assistance Program – Hazard Mitigation Funding under Section 406 (Stafford Act) | X                            |            |        | Yes   | This program, available after a Presidential disaster declaration, allows mitigation measures to be designed into projects to repair or restore public facilities damaged by the disaster event.  |
|   | Pre-Disaster Mitigation Grant Program  | X                            |            |        | Yes   | This annual, nationally competitive program funds hazard mitigation plans and cost-effective projects that reduce or eliminate the effects of hazards and/or vulnerability to future disaster damage.   |
|   | Flood Mitigation Assistance Program  | X                            |            |        | Yes   | This program funds flood mitigation plans, provides technical assistance, and funds construction projects that reduce flood risk to insured, repetitive loss properties.  |
|   | Repetitive Flood Claims Program  | X                            |            |        | Yes   | This program provides funding to reduce or eliminate the long-term risk of flood damage to structures insured under the NFIP that have had one or more claim payments for flood damages.  |

## Mitigation Strategy

| Agency  | Programs, Plans, Policies, Regulations, Funding or Practices | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description  |
|---|--|------------------------------|------------|--------|---|--|
|   |  | Support                      | Facilitate | Hinder |   |  |
| Military Department (Emergency Management Division) | Severe Repetitive Loss                                       | X                            |            |        | Yes   | This program provides funding to reduce or eliminate the long-term risk of flood damage to structures that are insured under NFIP and meet the definition of severe repetitive loss.   |
|   | National Tsunami Hazard Mitigation Program                   | X                            |            |        | Yes   | This program provides tsunami modeling for preparedness planning, mitigation initiatives, and public education; provides warning guidance to local jurisdictions; and facilitates installation of all-hazard alert systems in coastal areas. |
|   | Earthquake Program   |                              | X          |        |   | Provides coordination and oversight of seismic safety programs, supports public education and mitigation planning, and provides tools to support seismic hazard reduction.   |

## Mitigation Strategy

| Agency  | Programs, Plans, Policies, Regulations, Funding or Practices | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description   |
|---|--|------------------------------|------------|--------|---|---|
|   |  | Support                      | Facilitate | Hinder |   |   |
| Military Department (Emergency Management Division) | HAZUS (Hazards United States)                                |                              | X          |        |   | The division provides training and facilitates local and state use of HAZUS to support mitigation planning and development of mitigation strategies for areas at risk to earthquake. During the 2007-2010 update cycle, the state started an initiative to update the datasets for the HAZUS program. Data was sought from every county statewide and incorporated into CDMS for use by the local jurisdictions as they conduct risk assessment for their mitigation plans. During the next plan update cycle (2010-2013), the state will continue to enhance this dataset. In an effort to increase HAZUS use, several training sessions were conducted, as well as one-on-one assistance. |
|   | Volcano Program  |                              | X          |        |   | The division coordinates the efforts of workgroups for each of the state's five volcanoes, and helps in the development of response, preparedness and mitigation initiatives.   |
| Department of Fish and Wildlife                     | Hydraulic Code (RCW 77.55, WAC 220-110).                     |                              | X          |        |   | This law requires development in shorelines of marine and fresh waters of the state to include mitigation measures that protect aquatic habitat and fish. Work also must comply with the State Environmental Policy Act.  |

## Mitigation Strategy

| Agency                           | Programs, Plans, Policies, Regulations, Funding or Practices              | Effect on Loss Reduction (X) |            |        | Provides Funding for Mitigation Initiatives | Description  |
|----------------------------------|---|------------------------------|------------|--------|---|--|
|                                  |   | Support                      | Facilitate | Hinder |   |  |
| Department of Transportation     | Bridge Seismic Retrofit Program   | X                            |            |        | Yes   | Funds the seismic retrofitting of state-owned bridges to minimize and avoid catastrophic bridge failure due to earthquakes.  |
|                                  | Federal Highways Bridge Program   | X                            |            |        | Yes   | Funds repair and rehabilitation of locally-owned bridges, to include seismic retrofit and scour mitigation.  |
|                                  | Emergency Relief Program  | X                            |            |        | Yes   | Funds temporary and permanent repairs to federal-aid roads and bridges damaged by natural disaster. Also funds “betterments” that provide a reasonable assurance of preventing future disaster damage.   |
| Transportation Improvement Board | Six grant programs for local transportation projects (RCW 47.26, WAC 479) |                              | X          |        | Yes   | Grant funds can reimburse local jurisdictions for mitigation items that do not exceed state or federal requirements.   |
| County Road Administration Board | Rural Arterial Program (RCW 36.78 and 46.68, WAC 136-163)                 |                              | X          |        | Yes   | Under Emergency and Emergent Provisions, the program provides funding for temporary or permanent restoration work on rural roads and bridges to pre-disaster condition; it may include reconstruction to current design standards. In some cases, the Board may provide 100% of a county’s required matching funds for federal funding on a project. |



### III. Local Capability Assessment

---

**Requirement 44 CFR §201.4(c)(3)(ii): *Plan Content*.** To be effective the plan must include a *Mitigation Strategy* section that includes a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

Local governments have policies, programs and capabilities designed to mitigate – or assist in the mitigation of – impacts of hazard events on communities. Each community has its own policies, programs and capabilities, depending upon a number of factors such as size of area and population, and amount of funding available through local resources.

Regardless of its relative size or wealth, each community will have a core set of policies, programs and capabilities at its disposal related to hazard reduction and mitigation – building codes and land use plans and regulations. The table that follows highlights local capability related to these issues.

## Mitigation Strategy

### Local Capability Assessment

| Existing Local Policies |  |  |  |
|-------------------------|--|--|--|
| <i><b>Policy</b></i>    | <i><b>Description</b></i>  | <i><b>Applicability</b></i>  | <i><b>Effectiveness</b></i>  |
| Building codes          | <p>Adoption of building codes initially was the discretion of individual cities and counties. Passage of the State Building Code Act in 1974 mandated the use of 1973 UBC building codes throughout the state. Since this time, local jurisdictions can make amendments to the code but changes cannot diminish code requirements.</p> <p>The State Building Code Council (SBCC) now adopts building, fire, and mechanical codes for the State of Washington. These codes set minimum performance standards for buildings. The council amends the codes to meet state needs, but only if changes improve upon the original codes.</p> <p>As of this plan update, the SBCC has adopted and amended the 2009 editions of the International Codes for Building, Residential, Mechanical, and Fire as published by the International Code Council (ICC), and the 2009 edition of the Uniform Plumbing Code published by the International Association of Plumbing and Mechanical Officials. Additionally, it adopted the ICC's International Existing Building Code and Wildland and Urban Interface Codes as appendix chapters available for local adoption. The SBCC also adopted the 2009 Washington State Energy Code.</p> | <p>Since 1974, building codes adopted by the State Building Code Council have been applicable statewide.</p> <p>Counties and cities can amend the state codes, but they cannot diminish the minimum performance standards of the codes.</p> <p>The 2009 versions of the codes take effect July 1, 2010. All structures built after that date must comply with the new building codes, which includes provisions for the state's seismic hazard. Prior to July 1, 2010, new structures had to comply with the 2006 versions of the codes which also included provisions for the seismic hazard.</p> | <p>Before adoption of a statewide building code in 1974, there was a wide variation of minimum standards, as well as variation in use of requirements to address hazards including earthquake and winter storm.</p> <p>The state building code is updated regularly to account for new knowledge of hazards and changes in construction methods and materials, and to incorporate new designs and technologies. Despite 30 years of uniform building codes, consistent enforcement remains a problem.</p> <p>Local building departments are responsible for enforcing federal, state and local codes related to building construction projects. A study of structural failures following the December 1996 – January 1997 winter storms recommended more education and better communication for all parties involved in construction of buildings, including construction plans examiners and local building inspectors.</p> |

## Mitigation Strategy

| Existing Local Policies |  |  |   |
|-------------------------|--|--|---|
| <i><b>Policy</b></i>    | <i><b>Description</b></i>  | <i><b>Applicability</b></i>  | <i><b>Effectiveness</b></i>   |
| Land-use planning       | <p>The Planning Enabling Act provides the framework for guiding and regulating the physical development of a county or region.</p> <p>Comprehensive plans prepared under this act must include a land-use element to designate the general distribution, location and extent of various land uses (i.e., agriculture, housing, commerce, industry, education, recreation), and a circulation element with the location, alignment and extend of various transportation routes.</p> <p>Optional elements of comprehensive plans prepared under this act cover conservation of natural resources, use of solar energy, recreation, transportation, public services and facilities, housing, renewal and redevelopment, and capital improvements.</p> | <p>This land-use planning law applies to all local jurisdictions in the state – including counties, cities and towns, school districts, public utility districts, housing authorities, and port districts.</p> <p>As a practical matter, only the state's smaller, slow-growing, rural counties are planning under this state law.</p> | <p>The Planning Enabling Act provides the basic framework for local jurisdictions to develop land-use plans and development regulations.</p> <p>Planning under this law is not as comprehensive as required by the Growth Management Act (see below). It does not address ties between transportation and housing, and other factors required under GMA planning.</p> <p>The Planning Enabling Act is silent on the need for comprehensive plans to address hazard avoidance or hazard reduction.</p> <p>Local compliance with state requirements of this law is better than under the much more comprehensive Growth Management Act.</p> |

## Mitigation Strategy

| Existing Local Policies   |  |  |   |
|---------------------------|--|--|---|
| <i><b>Policy</b></i>      | <i><b>Description</b></i>  | <i><b>Applicability</b></i>  | <i><b>Effectiveness</b></i>   |
| Critical areas protection | <p>The Growth Management Act of 1990 requires all cities, towns and counties in the state to identify and protect the functions and values of critical areas. The act defines critical areas as frequently flooded areas (including areas prone to tsunamis), geologically hazardous areas (including areas prone to erosion, landslide, seismic activity, volcanic activity, etc.), fish and wildlife habitat conservation areas, wetlands, and recharge areas for aquifers used for potable water.</p> <p>The concept of protecting the function and values of critical areas includes protecting humans from flood and geologic hazards.</p> <p>Critical areas regulations must be reviewed and evaluated every seven years; amendments can be made annually.</p> | <p>All counties, cities and towns in the state must develop regulations to designate and protect critical areas.</p> <p>Legislation approved in 2003 established a schedule requiring cities and counties to update their critical areas regulations every seven years beginning in 2004. All updates must be complete by December 1, 2008 (most jurisdictions that originally had a due date of Dec 1, 2007 were given a one-year extension).</p> | <p>Cities and counties since 1995 must use best available science to develop policies and regulations to protect the function and values of critical areas. Most initial critical area regulations did not take into account best available science.</p> <p>Among the issues facing local jurisdictions preparing critical area regulations are balancing the use of scarce available resources for detailed planning and regulation development versus providing other services, and balancing the protection of critical areas with rights of owners to use or develop their property. Some believe that critical area protection requires communities to prevent development on too much land.</p> <p>Most jurisdictions have prepared critical area regulations that meet minimum state standards, but their effectiveness varies, depending upon local resources and local political considerations.</p> <p>As of January 2010, only 92 percent of jurisdictions required to have their critical areas regulations completed by the end of 2004 had done so. The completion percentage drops to 69 percent for 2005 jurisdictions, 38 percent for 2006 jurisdictions, and 27 percent for 2007 jurisdictions.</p> |

## Mitigation Strategy

| Existing Local Policies                       |   |  |  |
|---|---|--|--|
| <i>Policy</i>                                 | <i>Description</i>  | <i>Applicability</i>   | <i>Effectiveness</i>   |
| Growth Management Act (GMA) land-use planning | <p>The GMA, which became law in 1990, builds on the Planning Enabling Act by requiring all cities and counties in the state to:</p> <ul style="list-style-type: none"> <li>• Designate and protect critical areas (see previous page).</li> <li>• Designate farmlands, forestlands and other natural resource areas.</li> <li>• Determine that new residential subdivisions have appropriate provisions for public services and facilities.</li> </ul> <p>Additionally, fully planning counties (and their cities) must agree on countywide land-use policies, plan for growth within designated urban growth areas, identify lands for public purposes and essential public facilities, and adopt development regulations to carry out comprehensive plans.</p> <p>Comprehensive plans are built around 14 goals, and must provide for 20 years of growth and development needs. Plans must include elements on land use, utilities, housing transportation, capital facilities, rural lands, and shorelines.</p> <p>Comprehensive plans must identify hazard prone areas, and include policies to reduce vulnerability of housing, public facilities, transportation and utilities to identified hazards. Plans can address hazard reduction or hazard avoidance in one of two ways – through the required planning elements or through a separate but optional natural hazard reduction element.</p> | <p>Counties that meet the following criteria must fully plan under the Growth Management Act:</p> <ul style="list-style-type: none"> <li>- Counties with a population greater than 50,000 and: <ul style="list-style-type: none"> <li>• Before May 1995 had a 10 percent increase in population in the previous 10 years, OR</li> <li>• After May 1995 had a 17 percent increase in population in the previous 10 years.</li> </ul> </li> </ul> <p>Cities or Counties with populations under 50,000 that meet the following criteria must fully plan under the GMA:</p> <ul style="list-style-type: none"> <li>- Population has increased 20 percent in the previous 10 years.</li> </ul> <p>Cities or Counties that do not fit the above criteria can voluntarily choose to plan under the Growth Management Act.</p> <p>Under legislation passed in 2003, Counties or Cities required to fully plan must review every 10 years their designated urban growth areas, and review every 7 years their comprehensive plans and development regulations. In 2010, the Legislature extended the comprehensive plan review cycle by three years due to budget cuts that eliminated State funds for GMA planning grants during the 2009-2011 biennium.</p> | <p>Twenty-nine of the state's 39 counties are fully planning under GMA; 218 cities within these counties also must fully plan.</p> <p>Land-use plans and regulations under GMA requirements are much more comprehensive than those developed under the Planning Enabling Act.</p> <p>Among the issues facing local jurisdictions preparing GMA plans and regulations include balancing the use of scarce available resources for detailed planning and regulation development versus providing other services, and balancing the protection of critical areas with rights of owners to use or develop their property.</p> <p>Most jurisdictions have prepared land-use plans and regulations that meet minimum state standards, but their effectiveness varies, depending upon local resources and local political considerations.</p> <p>As of Jan 2010, 100 percent of jurisdictions required to have their comprehensive plans completed by the end of 2004 had done so. The completion percentage drops to 85 percent for 2005 jurisdictions, 57 percent for 2006 jurisdictions, and 29 percent for 2007 jurisdictions. Percentages for completion of development regulations range from 91 percent of 2004 jurisdictions to 20 percent of 2007 jurisdictions.</p> |
| Washington State                              | Hazard Mitigation Plan  |  | October 2010   |

## Mitigation Strategy

| Existing Local Policies |   |  |  |
|-------------------------|---|--|--|
| <i><b>Policy</b></i>    | <i><b>Description</b></i>   | <i><b>Applicability</b></i>  | <i><b>Effectiveness</b></i>  |
| Floodplain management   | <p>Three state laws govern floodplain management:</p> <p>RCW 86.12, Flood Control by Counties, gives counties the power to levy taxes, condemn properties and undertake flood control activities directed toward a public purpose. RCW 86.26, State Participation in Flood Control Maintenance, established the Flood Control Assistance Account Program (FCAAP) to provide state funding for local flood hazard management planning and implementation efforts. RCW 86.16, Floodplain Management, states that prevention of flood damage is a matter of statewide public concern and placed regulatory control within the responsibilities of the Department of Ecology.</p> <p>The state's floodplain management law allows local governments to adopt floodplain management requirements that exceed National Flood Insurance Program requirements, and requires local governments to enforce restrictions prohibiting new residential construction or reconstruction of substantially damaged residential structures in mapped floodways. Allowed under certain circumstances is reconstruction or replacement of substantially damaged farmhouses in the floodway.</p> | <p>RCW 86.12 applies to all counties of the state. Participation in the Flood Control Assistance Account Program requires local jurisdictions to participate and be in good standing in the National Flood Insurance Program, and their activities must be approved by the Department of Ecology in consultation with the Department of Fish and Wildlife.</p> <p>Grants are available for up to 75 percent of the cost of flood hazard management planning, and 50 percent for the cost of flood damage reduction projects, including purchase of flood prone properties, limited flood mapping, and flood warning systems.</p> <p>Flood damage reduction projects must be consistent with local comprehensive flood hazard management plans.</p> <p>Emergency grants are available to respond to unusual flood conditions.</p> | <p>Despite a lack of funding, communities continue making floodplain management a priority.</p> <p>The State provided Flood Damage Prevention Grant funding 13 local projects in the 2009-11 biennium. Grants for these projects total \$1.35 million.</p> <p>Washington has 33 communities participating in the Community Rating System. King County has a CRS rating of 2, making it the highest ranked county in the nation.</p> <p>Many communities have created innovative floodplain management techniques, such as:</p> <ul style="list-style-type: none"> <li>• Higher freeboard standards than federal regulations require (e.g., Everett and Chelan County).</li> <li>• Prohibiting fill for structural support of residential buildings in floodplains (e.g., Skagit and King Counties.)</li> <li>• Providing storage to compensate for filling floodplains (many localities).</li> <li>• Prohibiting new residential structures in the floodplain (Thurston County)</li> <li>• Exceeding federal standards for floodways (Pierce County).</li> </ul> |

## Mitigation Strategy

| Existing Local Policies |   |  |  |
|-------------------------|---|--|--|
| <i>Policy</i>           | <i>Description</i>  | <i>Applicability</i>   | <i>Effectiveness</i>   |
| Shoreline management    | <p>A public referendum adopted the Shoreline Management Act in 1971 to prevent the “inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.” Implementing regulations were updated in late 2003 for the first time in 30 years.</p> <p>The act covers three basic policy areas:</p> <ol style="list-style-type: none"> <li>1. Accommodation of reasonable and appropriate uses. The act prefers uses consistent with control of pollution and prevention of damage to the natural environment, or uses that are unique to or dependent upon shorelines.</li> <li>2. Protection of the shoreline environmental resources. The act intends to protect shoreline natural resources including the land and its vegetation and wildlife, and the waters of the state and their aquatic life, against adverse impacts.</li> <li>3. Protection of the public’s right to access and use the shorelines. The act requires local shoreline master programs to include provisions for public access and recreational opportunities at publicly owned shorelines.</li> </ol> <p>State shoreline regulations were updated in 2003; they are more comprehensive than before and include a greater basis in science; they take into consideration protection of critical resources and physical and biological processes and functions.</p> | <p>The Shoreline Management Act applies to all 39 counties and more than 220 cities with shorelines created from:</p> <ul style="list-style-type: none"> <li>• Marine waters (Pacific Ocean, Strait of Juan de Fuca, Puget Sound).</li> <li>• Streams and rivers with a mean annual flow greater than 20 cubic feet per second.</li> <li>• Lakes and reservoirs greater than 20 acres in areas.</li> <li>• Upland areas called shorelands that extend 200 feet landward from the edge of these waters.</li> <li>• Biological wetlands and river deltas, and some or all of the 100-year floodplain when associated with one of the above.</li> </ul> <p>The act establishes a balance of authority between local and state government. Cities and counties are the primary regulators.</p> | <p>Unlike land-use plans prepared under the Growth Management Act, presumed valid upon local adoption, local shoreline regulations must be approved by the Department of Ecology before they are considered valid and implemented.</p> <p>Strength of local shoreline regulations is avoiding development on unstable shoreline slopes and in frequently flooded areas.</p> <p>Obstacles to successful development of shoreline master programs (SMP) include local political will to develop regulations sufficient to protect shorelines via buffers, setbacks, and appropriate design criteria.</p> <p>With adoption of new state regulations for local SMPs, all communities must revise their master programs by Dec 2014. The Department of Ecology has made over \$10 million in planning grants available to eligible communities to inventory shoreline resources and develop updated SMPs. This includes the delineation of channel migration zones which are potentially hazardous areas.</p> |

## Mitigation Strategy

| Existing Local Policies        |   |   |  |
|--------------------------------|---|---|--|
| <i>Policy</i>                  | <i>Description</i>  | <i>Applicability</i>  | <i>Effectiveness</i>   |
| State Environmental Policy Act | <p>The State Environmental Policy Act was adopted in 1971 to provide a regulatory framework for state and local agencies to address environmental issues in their decisions. The act provides information to agencies, applicants and the public to encourage the development of environmentally sound proposals. The environmental review process involves the identification and evaluation of probable environmental impacts and the development of mitigation measures that will reduce adverse impacts.</p> <p>SEPA was modeled after the National Environmental Policy Act.</p> <p>The act ensures that environmental values are considered during decision making by state and local agencies. When the act was adopted, the Legislature identified four primary purposes:</p> <ol style="list-style-type: none"> <li>1. To declare state policy this will encourage productive and enjoyable harmony between man and the environment.</li> <li>2. To promote efforts which will prevent or eliminate damage to the environment.</li> <li>3. To stimulate the health and welfare of man.</li> <li>4. To enrich the understanding of the ecological systems and natural resources important to the state and nation.</li> </ol> | <p>The law requires local governments to:</p> <ul style="list-style-type: none"> <li>• Utilize a systematic, interdisciplinary approach that ensures the integrated use of natural and social sciences and the environmental design arts in planning and decision-making that may affect the environment.</li> <li>• Ensure that environmental amenities and values are given appropriate consideration in decision making along with economic and technical considerations.</li> </ul> | <p>SEPA provides a process to give local decision makers information on environmental protection and hazard reduction related to new development. In its early years, this law was the only mechanism that provided for mitigation from natural hazards such as flooding and landslides. Today, critical area regulations required by the Growth Management Act have taken much of this responsibility.</p> <p>SEPA's effectiveness depends upon its application by local jurisdictions. Many communities face the issue of balancing environmental protection with rights of owners to use or develop their property.</p> <p>Larger and more sophisticated counties use SEPA in combination with their own critical area regulations to provide a holistic approach to environmental protection and hazard avoidance. Thurston County, for example, uses SEPA to fill gaps in local regulations related to mitigating hazards. However, this county is the exception rather than the rule throughout the state.</p> <p>Communities that take the SEPA process seriously can use it to improve their mitigation efforts. A checklist helps communities determine the environmental impact of a proposed development.</p> |



### IV. Mitigation Actions

---

**Requirement 44 CFR §201.4(c)(3)(iii): *Plan Content*.** To be effective the plan must include a *Mitigation Strategy* section that includes an identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.

#### *Mitigation Action Agenda*

The Mitigation Action Agenda ([below](#)) represents the mitigation actions and initiatives for the state government of Washington to pursue during the 2007-2010 period as identified by the SHMAT and the state agencies participating in this edition of the plan. The mitigation initiatives represent a mix of actions continued from the 2004 plan because they remain a work in progress and a few initiatives whose language was revised but whose intent remains the same. A number of action items identified in the 2004 plan were dropped.

#### Revisions to the Mitigation Action Agenda

In revising the mitigation action agenda for state government for the period of 2007 to 2010, the SHMAT took the following into account:

- Progress by state agencies on mitigation actions in the 2004 and 2007 state plans (for details, see Plan Maintenance, Tab 4).
- Identification of mitigation strategies and actions in the hazard mitigation plans of the state's fastest-growing counties (for details, see Planning Process, Tab 2), several of which have been incorporated within Tab 3, *Coordination of Local Mitigation Planning*, page 23.

As a result of this review, the advisory team reaffirmed the five goals for mitigation as identified in the state's original hazard mitigation plan, and made minor changes in the language of a few of the identified mitigation strategies.

Additionally, participating state agencies also reviewed the mitigation actions they identified in the 2004 and 2007 plans and made revisions as appropriate for the 2010 plan, as well as providing new action items.

For this edition of the state plan, there is one matrix containing all state agency mitigation actions. This is a change from the 2004 and 2007 plans. The purpose of the revision is to reduce the burden on participating agencies and to streamline the mitigation plan review and revision process.

## Mitigation Strategy

Another change is that revisions were made to the text describing several action items. However, each revision is not listed below, because the general intent of the action items as identified in the plan remains the same. Revisions were made to: strengthen, provide more specificity, or expand an action item. For example:

Action 2.1.5 – Develop a plan to examine the vulnerability of transportation infrastructure and lifelines along the Interstate 5 corridor from Vancouver, B.C., to Portland, OR, and the Interstate 90 corridor from Seattle to Coeur d’Alene, ID, using the recently completed Port-to-Port Transportation Corridor Earthquake Vulnerability Study as a model. The plan should include strategies to obtain funding for this work. (2004 Plan)

BECAME

Action 2.1.3 – Develop a plan to complete seismic retrofit projects on vulnerable bridges in important state transportation corridors. (2007 Plan)

Due to combining the different tables previously included in the plan, the numbering of the various action items identified in the previous state plan may have changed. It should be noted that no items were removed. If during the 2010 update cycle it was determined that an item is no longer valid, it has been given a status of “Removed,” pulled from the general matrix, and placed in Tab 13, the *Annex* portion of the plan, and will ultimately be removed during the next plan update cycle.

### Prioritizing Mitigation Actions

The mitigation actions and initiatives are not in a 1-2-3 priority order, nor are they categorized as being of high, medium or low priority. The reason for this is the philosophy of the State Hazard Mitigation Program to foster holistic state agency and local programs that make hazard mitigation a way of doing business. Rather than encouraging eligible agencies to develop a list of planning and construction projects for federal hazard mitigation grants when they become available, the state program encourages agencies and organizations to include mitigation as they consider construction and location of new buildings, make existing facilities safer and develop strategic plans for organization operations.

The State Hazard Mitigation Program does not target available resources to a handful of local jurisdictions or to just a few hazards. The reason for this is two-fold.

1. Washington has a home-rule style of governance. This means that local governments are responsible for maintaining control of government services and actions at the lowest possible level, rather than the state providing top-down direction to control decisions that affect local citizens.

## Mitigation Strategy

2. Pouring most or all of available resources into a small area (three to five flood-prone counties, for example) or for limited mitigation tasks (for elevating or purchasing of repetitive flood-loss properties, for example) is politically untenable and it discourages non-funded jurisdictions from developing and maintaining hazard mitigation programs, plans and projects.

Rather than establish project priorities, the State Hazard Mitigation Program requires any mitigation project proposed for funding through the federal hazard mitigation grant programs administered by the State EMD (including state agency projects) to:

1. Support the goals and objectives of the SHMP.
2. Reduce identified hazard risk.
3. Reduce repetitive and severe repetitive losses, without regard to hazard.
4. Protect critical areas, particularly frequently flooded areas and geologically hazardous areas.

Proposed state projects must compete with projects proposed by eligible local governments; this ensures that federal grant-funded state and local projects address state hazard mitigation priorities.

Upon adoption of this plan, the State Hazard Mitigation Program will begin placing a greater focus on fast-growing jurisdictions identified as most vulnerable to natural hazard events. The purpose will be to ensure they have FEMA-approved hazard mitigation plans, as well as the tools and capability to develop hazard mitigation projects and successful grant funding applications. As of 2010, only two counties have conducted no mitigation planning activities; all of the remainder of Washington's counties either are in the process of updating an existing plan, developing a new plan, or have a plan in place.

In the 2008 Washington State Enhanced Plan, a number of steps were identified to mitigate and reduce the number of repetitive loss and severe repetitive loss properties. One step was to revise the Hazard Mitigation Grant Program application to indicate that mitigating these properties are a priority of the state. The HMGP application package and project evaluation, scoring and prioritization criteria were extensively revised for the DR-1817 and DR-1825 Hazard Mitigation Grant Programs, to include additional points for mitigating repetitive flood loss structures through acquisition, evaluation or relocation, and for providing a long-term solution for a repetitive problem such as repetitive flood damage. The State Mitigation Grant Programs Administrative Plan, updated June 2009, and approved by FEMA in August 2009, allows the state to establish priorities for HMGP for projects that will be considered and recommended for funding outside of the competitive process. For the DR-1817/DR-1825 HMGP, the state made acquisition of substantially damaged, flooded properties a priority for

## Mitigation Strategy

funding; in general, properties that are substantially damaged in a flood event have been damaged repeatedly by this hazard. The state submitted to FEMA five applications for acquisition of properties substantially damaged in the DR-1817 January 2009 Flood Disaster; these applications were for acquisition of repetitive loss (RL) properties (14 homes and one mobile home park in King, Lewis, Pierce, and Whatcom Counties). Because of funding limitations in these two Hazard Mitigation Grant Programs, the state recommended to at least two jurisdictions (i.e., King County and City of Snoqualmie) that they remove severe repetitive loss (SRL) properties from their HMGP applications and submit applications of funding for them through the FY09 or FY10 Flood Mitigation Assistance program.

In addition, the state has taken – and will continue to take – action to increase the number of project applications for the mitigation of RL and SRL properties. In notices of availability of funding for Pre-Disaster Mitigation and the three flood-mitigation programs, the state has encouraged communities to consider applying for funds for projects to mitigate RL and SRL properties, noting that funding for SRL properties could be up to 90 percent federal as a result of the repetitive loss reduction strategy in the State Enhanced Hazard Mitigation Plan. In 2009, the state, in concert with staff from FEMA Region 10 and Headquarters staff, offered SRL program training and outreach assistance to communities with SRL properties; the training and outreach assistance was not completed as scheduled because of a lack of interest due to looming application deadlines for the DR-1817/1825 HMGPs. The training has been rescheduled for July 2010; to date, more than 25 staff from SRL communities and state staff have signed up for training and outreach assistance, and it is anticipated the training will be offered as scheduled.

Also, in advance of the FY11 Hazard Mitigation Assistance application period, the state is encouraging communities to consider applying for funds through the Repetitive Flood Claims (RFC) and SRL program for FY11. The state anticipates that one or more applications for the RFC program will be received from financially distressed communities because they cannot meet the match requirements of the Flood Mitigation Assistance Program due to the current recession. Also, the state provided information to communities with SRL properties of a new FEMA pilot program to use Increased Cost of Compliance funding as match for the SRL grant program in another attempt to encourage projects to mitigate SRL properties.

Finally, the state is providing requesting communities with lists of RL and SRL properties for use in developing mitigation grant applications and in their hazard mitigation plan updates, and is helping communities to appropriately address the National Flood Insurance Program compliance requirements as they update existing hazard mitigation plans or develop initial plans.

As of January 31, 2010, Washington State has 91 SRL properties distributed through 12 counties, eight of which are already covered by local hazard mitigation plans. One of the remaining counties (Lewis) has submitted a local HMP to FEMA for approval, while the other two counties (Kittitas and Mason) are currently developing their HMPs.

## **Mitigation Strategy**

### Addressing Cost-Effectiveness, Environmental Soundness, Technical Feasibility

Any state government construction project – regardless of potential funding source – has to be cost-effective, technically feasible and meet all appropriate federal, state, and local environmental laws and regulations before it is started.

State government projects funded by federal hazard mitigation grant programs administered by the State EMD must meet specific criteria related to cost-effectiveness, environmental soundness, and technical feasibility. The criteria are established in the state's *Hazard Mitigation Programs Administrative Plan*, Tab 8.

### V. Funding Sources

---

**Requirement 44 CFR §201.4(c)(3)(iv): *Plan Content.*** To be effective the plan must include a *Mitigation Strategy* section that includes the identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

As stated in the State Capability Assessment at the beginning of this chapter, the primary sources for state and local hazard mitigation projects have been the federally funded programs available through the Federal Emergency Management Agency (FEMA) and the state-funded FCAAP. Funds for the state match or state contribution to local jurisdiction non-federal match comes from the state's general fund budget. Local governments have used a variety of other sources to fund hazard mitigation projects, including local revenues, Community Development Block Grants, Public Works Trust Fund loans, and a variety of transportation grant programs.

The *State Capability Assessment Matrix* ([above](#)) contains a variety of sources that have been – and will continue to be – used to fund hazard mitigation projects, plans and initiatives by local and state governments. Additionally, federal funding opportunities identified in Tab 13, *Annex 2* of this plan will be examined for applicability for future state and local hazard mitigation projects.

#### *State Financial Outlook*

The primary sources of revenue for Washington State general governmental operations are sales and use taxes, state share of the property tax, and the business and occupations tax, a tax on the gross receipts of businesses. (Note: The State does not have an income tax.) A variety of other taxes, fees and federal grants make up the rest of the state general-fund budget.

The bulk of the state general-fund budget – more than 90 percent – pays for K-12 and higher education, and social, health and other human services. The rest is spent on all other general government operations (that includes hazard mitigation initiatives), legislative and judicial services, transportation, and debt repayment. (Note: The state gasoline tax and federal sources primarily fund transportation.)

The state also has a biennial Capital Budget, funded through bonded debt as well as general fund appropriations and a variety of other funds earmarked for specific purposes (e.g., timber trust revenue for school construction).

Along with the rest of the nation, the State's budget over the last couple of years has been severely impacted by the economic downturn. The 2009-2011 biennium budget faced a \$9 billion shortfall (27% of the state's General Fund operating budget) near the beginning of the biennium period, and another \$2.6 billion shortfall in early 2010. A significant portion of this shortfall was covered by budget cuts, including reductions in

## Mitigation Strategy

the state workforce and program funding. The Department of Ecology's hazard mitigation related programs, including the FCAAP, were reduced.

Forecasts made in February 2010 (the latest available as of this writing) indicate that the state can expect an additional \$31.5 million in general-fund revenue during the current 2009-2011 biennium than projected in November 2009, the first projected increase since the start of the downturn. The February 2010 forecast for the 2011-2013 biennium state general-fund revenue is \$32.2 billion, which would be a \$3.5 billion increase over the current biennium revenue projections.

At this time, it is difficult to predict the future budgetary outlook for the State with respect to its hazard mitigation initiatives. The longer range budget plans include the current hazard mitigation related programs at their fully funded levels. However, there remains the possibility of future cuts if the current budget woes continue. Additional information on the state's economic status can be found within Tab 5, *Risk Assessment*, Section 5.1.

### *Local Funding*

Within Washington State, there are 39 counties, 281 cities and towns, and more than 1,700 special districts of about 70 different types; special districts include flood control districts, cemetery districts, diking and drainage districts, school districts, housing authorities, public stadium authorities, transportation and transit districts, park districts, and a television reception improvement district (one in the state).

The primary revenue sources for general operations of counties, cities and towns are the local shares of property taxes, state sales and use taxes, and intergovernmental revenues such as local shares of the state gas tax, state timber revenue, and profits from state liquor sales. Counties, cities and towns also can authorize special levies to build roads, provide emergency medical services, maintain local hospitals, and make flood control improvements. These local governments can authorize fees for various permits and business activities that take place within their jurisdictions, but these revenues generally offset the cost of licensing or regulating the identified activities. Additionally, they can issue bonds to pay for long-term capital projects.

Most special districts, such as school districts, public utility districts and port districts, also obtain money for operations and maintenance and for capital projects through both property tax levies and bonds.

All local government units with the ability to issue long-term bonds are limited to the amount of debt they can hold; the amount is based on a specific percentage of the assessed valuation of the district codified in state law.

In recent years, resources available to local governments for their operations have been squeezed by voter-approved initiatives that have eliminated some state revenue sources (motor vehicle excise tax, for example) and restricted annual local tax

## Mitigation Strategy

increases, as well as by economic conditions that reduced both local and state revenues.

As stated in the State Capability Assessment, above, the primary sources for local hazard mitigation projects have been the federally funded programs available through the Federal Emergency Management Agency and the state's Flood Control Assistance Account Program. Local governments have used a variety of other sources to fund hazard mitigation projects, including local revenues, Community Development Block Grants, Salmon Recovery Fund Grants, Public Works Trust Fund loans, and a variety of transportation grant programs.

Additionally, cities, towns and counties receive state grants from the Department of Commerce to help pay for development of critical areas ordinances, comprehensive plans, associated land-use development regulations, and capital improvement plans.

### *Private Funding*

The Foundation Center, [www.fdncenter.org](http://www.fdncenter.org), is an organization that promotes public understanding of philanthropy and helps grant seekers. This site showed some information on private and corporate giving related to disaster preparedness (through mitigation actions) and disaster relief.

In the late 1990's, the Boeing Corporation spent approximately \$1.5 million of its own funds on a seismic retrofit project for its aircraft production plants in the Puget Sound Region. The project paid immediate dividends as none of the retrofitted equipment was damaged during the 2001 Nisqually Earthquake. See Tab 11, *Best Practices*, for a more detailed summary of this project.

Occasionally, corporations provide money and in-kind services for various mitigation projects that meet corporate community service goals; this occurs primarily on the local government or community level. For example, the Home Depot home improvement chain has sponsored in-store earthquake retrofit clinics at several stores throughout the Puget Sound region and has posted disaster mitigation related information on its website. The websites below are specifically dedicated to mitigation and recovery efforts, and provide hazard specific, detailed information.

[www.homedepot.com/hdus/en\\_US/DTCCOM/HomePage/Know\\_How/Weather\\_Center/Earthquake/Docs/Earthquake\\_Preparation.pdf](http://www.homedepot.com/hdus/en_US/DTCCOM/HomePage/Know_How/Weather_Center/Earthquake/Docs/Earthquake_Preparation.pdf)

[www.homedepot.com/webapp/wcs/stores/servlet/ContentView?pn=KH\\_Weather\\_Center&langId=-1&storeId=10051&catalogId=10053&cm\\_sp=9dced3c9-31ad-4f78-a9fe-1bb673cc78b7](http://www.homedepot.com/webapp/wcs/stores/servlet/ContentView?pn=KH_Weather_Center&langId=-1&storeId=10051&catalogId=10053&cm_sp=9dced3c9-31ad-4f78-a9fe-1bb673cc78b7)

For approximately 2-years, the Washington State Military Department and Green Diamond Resource Company have been in negotiations regarding an agreement to permit evacuation of coastal residents within Pacific County, Washington onto land privately held by Green Diamond during a disaster. Green Diamond Resource Company has agreed to make privately held timber land available as an evacuation route/site in



## Mitigation Strategy

the event of a disaster, including a tsunami, to citizens, first responders, and emergency management officials. In exchange for use of the aforementioned property as an evacuation site, the Washington State Military Department agrees to assume liability for damage to property and injury/death to persons caused by evacuation activities as allowed by law and subject to RCW 38.52.180. The agreement was executed in March 2009.

In March 2010, the Washington State Department of Natural Resources and the Weyerhaeuser Company (a major forest products company) reached an agreement that the company would voluntarily increase landslide protections. As part of this agreement, DNR and Weyerhaeuser will apply emerging technologies like slope stability models, digital elevation terrain mapping, and advanced aerial photography imaging to enhance detection of potentially unstable slopes. See website below for more info.

[www.dnr.wa.gov/BusinessPermits/News/Pages/2010\\_03\\_25\\_dnr\\_veyco\\_landslide\\_protec\\_nr.aspx](http://www.dnr.wa.gov/BusinessPermits/News/Pages/2010_03_25_dnr_veyco_landslide_protec_nr.aspx)

To encourage more private funding activities, the EMD launched a website on November 19, 2007, to provide businesses with a roadmap to prepare for and mitigate the effects of all types of emergencies. The website, [http://emd.wa.gov/preparedness/prep\\_business.shtml](http://emd.wa.gov/preparedness/prep_business.shtml), is meant to be a one-stop destination to provide user-friendly information to assist businesses in achieving their highest readiness level. Among other things, the site offers a 12-step Comprehensive Business Preparedness and Planning guide; statewide local training, exercise and volunteer program listings; embedded links to related web sites, source documents and easy-to-use templates that can be customized for any business; and an Industry Standard, Best Practice and Benchmarking section so that businesses can track their progress in relation to established standards within their business sector.

In May 2010, EMD added a new section to the division in an effort to continue to contribute to the overall renewal of the State's commitment to mitigation, response, recovery and preparedness activities through the public/private partnership. This position is tasked with instituting the state's corporate relations program in its continued efforts to integrate public education, information and outreach to private businesses into one cohesive approach.

In the next three years, the state once again will attempt to examine private funding opportunities for state hazard mitigation projects and initiatives, and attempt to build on the success and corporate partnerships established by local governments.

### *Federal Funding*

As stated previously, the state relies heavily upon federal hazard mitigation grant programs available through the Federal Emergency Management Agency to fund state government hazard mitigation projects. The *Federal Mitigation Programs, Activities, and Initiatives* Table in Tab 13, Annex 2 of this plan identifies an extensive list of potential federal funding opportunities for hazard mitigation projects and initiatives.

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency        | Mitigation Goals     | Mitigation Objectives  | Action | Action Item  | Estimated Cost                 | Funding Source             | 2009 Project Status  | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------|----------------------|--|--------|--|--------------------------------|----------------------------|--|------------------------------|--|------------|----------|-----------------|
| Attorney General's Office | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications | 1.1.9  | Install building intercom systems  | \$50,000                       | Capital Improvement Budget |  | Ongoing, perpetual in nature | System training component should be complete in 2010.  | 2004       | 2010     | All             |
| Attorney General's Office | Goal 1: Protect Life | 1.5 Train emergency responders                               | 1.5.2  | Upgrade emergency response equipment and training.   | \$16,000                       | State general fund         | On-going, perpetual in nature                                      | Ongoing, perpetual in nature | The AGO continually seeks additional training opportunities.   | 2004       |          | All             |
| Attorney General's Office | Goal 1: Protect Life | 1.5 Train emergency responders                               | 1.5.3  | National Incident Management System training.  | Minimal                        | State general fund         | On-going, perpetual in nature                                      | Ongoing, perpetual in nature | As changes occur in the composition of our building, agency, safety and security committees, those employees require training. | 2004       |          | All             |
| Attorney General's Office | Goal 1: Protect Life | 1.5 Train emergency responders                               | 1.5.4  | Conduct and participate in emergency drills and exercises.                                       | AGO - unknown incremental cost | Outside source/ budget     | Ongoing, SPSCC developing all-hazard college-wide exercise program | Ongoing, perpetual in nature | The AGO's Operational Safety and Security Plan calls for a minimum of 1 drill per year to test our agency emergency response   | 2004       |          | All             |
| Attorney General's Office | Goal 1: Protect Life | 1.5 Train emergency responders                               | 1.5.5  | Develop a comprehensive agency Safety & Security Plan and corresponding Plans for each facility. | Not available                  | State general fund         | On-going, perpetual in nature                                      | Ongoing, perpetual in nature | While the agency and building plans are developed, there is an ongoing component to update and test the plans.                 | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency        | Mitigation Goals                      | Mitigation Objectives                      | Action | Action Item  | Estimated Cost | Funding Source                                    | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------|---------------------------------------|--|--------|--|----------------|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Attorney General's Office | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | \$5,000        | State general fund                                | On-going, perpetual in nature | Ongoing, perpetual in nature | As new equipment, furniture is added or moves occur, we ensure this is completed, but because new items are continually added this is an ongoing process. | 2004       |          | EQ              |
| Attorney General's Office | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.11 | Review each facility's lease to ensure it addresses which party is responsible for repairing damage to the building, tenant improvements, mechanical systems, parking areas, etc. Determine whether the agency or the landlord carries hazard insurance. |                |   | In-progress                   | In-progress                  | Anticipate a 6/30/10 completion.  | 2009       | 2010     | All             |
| Attorney General's Office | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.4  | Establish Business Continuity Management Program   | Not available  | None identified, funding requests to date denied. | Pending                       | Ongoing, perpetual in nature | In 2009 all divisional coop plans were updated. This is an annual update and the implementation of business continuity is ongoing in nature               | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency         | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|----------------------------|--|--|--------|---|----------------|-----------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Attorney General's Office  | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.1  | Develop/ implement a coordinated state all-hazard public education strategy building on results of assessment of previous education efforts.              | Unknown        | None identified |                               | Ongoing, perpetual in nature | Agency participates in all annual exercises, e.g., EQ drill, etc. | 2009       |          | All             |
| Attorney General's Office  | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.12 | Conduct safety fair for state agencies on the Olympia Capitol Campus that includes vendors and resources for emergency preparedness and disaster recovery | Not Available  | GFS             | Pending                       | Ongoing, perpetual in nature | This is an annual event, last year's event was held 9/11/09       | 2009       |          | All             |
| Big Bend Community College | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications   | 1.1.7  | Enhance and ensure interoperable communication  | TBD            | TBD             | On-going, perpetual in nature | In-progress                  |   | 2007       | 2010     | All             |
| Big Bend Community College | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications.  | 1.1.8  | Continue upgrade of fire alarm systems  | TBD            |                 | On-going, perpetual in nature | In-progress                  |   | 2010       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency         | Mitigation Goals     | Mitigation Objectives   | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|----------------------------|----------------------|---|--------|--|----------------|----------------|---------------------|------------------------------|--|------------|----------|-----------------|
| Big Bend Community College | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications. | 1.1.10 | Continue to upgrade the campus two-way radio system  |                |                |                     | Tabled                       | Purchasing freeze.   | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications. | 1.1.11 | Purchase back up wireless communication system   |                |                |                     | Tabled                       | Purchasing freeze.   | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications. | 1.1.12 | Incorporate a review and upgrade of the fire alarm and fire sprinkler systems in all renovation and replacement projects |                |                |                     | Ongoing, perpetual in nature | We are combining this effort with a mass notification system as part of our NIMS compliant Emergency Response Plan | 2010       |          | WF              |
| Big Bend Community College | Goal 1: Protect Life | 1.3 Reduce the impacts of hazards on vulnerable populations   | 1.3.3  | Emphasize the consideration of life safety issues and risks in capital budget process                                    |                |                |                     | In-progress                  |  | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.3 Reduce the impacts of hazards on vulnerable populations   | 1.3.4  | Improve Fire Suppression system.   |                |                |                     | Ongoing, perpetual in nature |  | 2010       |          | WF              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency         | Mitigation Goals     | Mitigation Objectives                                       | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|----------------------------|----------------------|---|--------|--|----------------|----------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Big Bend Community College | Goal 1: Protect Life | 1.3 Reduce the impacts of hazards on vulnerable populations | 1.3.5  | Work with community agencies to develop mass care and shelter capabilities through MOUs, MAAs, etc.        |                |                |                               | In-progress                  |  | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.4 Strengthen state & local building codes and enforcement | 1.4.2  | Ensure that all renovations and replacement projects include design elements to address potential hazards. |                |                |                               | Ongoing, perpetual in nature |  | 2010       |          | EQ, F, WF, SS   |
| Big Bend Community College | Goal 1: Protect Life | 1.5 Train emergency responders                              | 1.5.2  | Upgrade emergency response equipment and training.   |                |                |                               | Ongoing, perpetual in nature |  | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.5 Train emergency responders                              | 1.5.3  | National Incident Management System training.  |                |                | On-going, perpetual in nature | Ongoing, perpetual in nature |  | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life | 1.5 Train emergency responders                              | 1.5.4  | Conduct and, participate in emergency drills and exercises.  |                |                |                               | Ongoing, perpetual in nature | BBCC conducts and participates in several drills and exercises each year, testing plans as they are developed. | 2010       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency         | Mitigation Goals                      | Mitigation Objectives                     | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status | 2010 Updated Status          | Comments | Year Added | End Date | Hazard Impacted |
|----------------------------|---------------------------------------|---|--------|--|----------------|----------------|---------------------|------------------------------|----------|------------|----------|-----------------|
| Big Bend Community College | Goal 1: Protect Life                  | 1.5 Train emergency responders            | 1.5.5  | Develop a comprehensive agency Safety & Security Plan and corresponding Plans for each facility.   |                |                |                     | Ongoing, perpetual in nature |          | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life                  | 1.5 Train emergency responders            | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator |                |                |                     | Ongoing, perpetual in nature |          | 2010       |          | All             |
| Big Bend Community College | Goal 1: Protect Life                  | 1.5 Train emergency responders            | 1.5.11 | Expand and support Campus Emergency Response Team program.   |                |                |                     | Pending                      |          | 2010       |          | All             |
| Big Bend Community College | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations | 3.2.2  | Develop contingency plans to provide for continuation of programs in the event of disaster.  |                |                |                     | New                          |          | 2010       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost | Funding Source | 2009 Project Status | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|--|--------|---|----------------|----------------|---------------------|---------------------|---|------------|----------|-----------------|
| Big Bend Community College      | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.4  | Disseminate disaster preparedness and emergency information to constituents (e.g., faculty, staff, student).  |                |                |                     | New                 | LCB, Removed 2010.                                    | 2010       |          | All             |
| Big Bend Community College      | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.6  | Ensure all employees are knowledgeable about agency emergency procedures (including evacuation routes) and maintain emergency supplies at desk            |                |                |                     | New                 |   | 2010       |          | All             |
| Capital Campus Safety Committee | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.12 | Conduct safety fair for state agencies on the Olympia Capitol Campus that includes vendors and resources for emergency preparedness and disaster recovery | Not Available  | GFS            | Pending             |                     | This is an annual event which occurs every September. | 2004       |          | All             |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency | Mitigation Goals     | Mitigation Objectives   | Action | Action Item  | Estimated Cost              | Funding Source     | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|--------------------|----------------------|---|--------|--|-----------------------------|--------------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Clark College      | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications. | 1.1.12 | Incorporate a review and upgrade of the fire alarm and fire sprinkler systems in all renovation and replacement projects   | Cost dependent upon project | State General Fund | On-going, perpetual in nature | Ongoing, perpetual in nature | We are combining this effort with a mass notification system as part of our NIMS compliant Emergency Response Plan | 2007       |          | WF              |
| Clark College      | Goal 1: Protect Life | 1.4 Strengthen state & local building codes and enforcement   | 1.4.2  | Ensure that all renovations and replacement projects include design elements to address potential hazards.                 | No incremental cost         | State general fund | Ongoing                       | Ongoing, perpetual in nature | Lack of capital funds may delay this process   | 2004       |          | EQ, F, WF, SS   |
| Clark College      | Goal 1: Protect Life | 1.5 Train emergency responders                                | 1.5.7  | Verify that building evaluation coordinators are identified and trained.   | \$1,000                     | State general fund | On-going, perpetual in nature | Ongoing, perpetual in nature | This is part of the College's NIMS compliant Emergency Response Plan   | 2004       |          | All             |
| Clark College      | Goal 1: Protect Life | 1.5 Train emergency responders                                | 1.5.8  | Review and update the Emergency Response Procedures and Guide consistent with natural and other emergency response issues. | \$25,000                    | State general fund | On-going, perpetual in nature | Ongoing, perpetual in nature | This is part of the College's NIMS compliant Emergency Response Plan   | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency        | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost      | Funding Source          | 2009 Project Status           | 2010 Updated Status           | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------|--|--|--------|---|---------------------|-------------------------|-------------------------------|-------------------------------|--|------------|----------|-----------------|
| Clark College             | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.2  | Develop contingency plans to provide for continuation of programs in the event of disaster.   | No incremental cost |                         | On-going, perpetual in nature | Ongoing, perpetual in nature  | This is part of the College's NIMS compliant Emergency Response Plan   | 2004       |          | All             |
| Department of Agriculture | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications.  | 1.1.15 | Purchase two-way MHz radios for the Emergency Response Teams  | \$8,000             | General Fund, HM Grants | Initiated                     | Ongoing, perpetual in nature  | Radios have been purchased for WSDA - frequencies need to be contracted and assigned.  | 2009       |          | All             |
| Department of Agriculture | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking   |                     |                         |                               | On-going, perpetual in nature |  | 2004       |          | EQ              |
| Department of Agriculture | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.7  | Facilitate the review of existing emergency response plans for potential enhancement with respect to natural and man-made Hazard Mitigation activities. | No incremental cost | N/A                     | On-going, perpetual in nature | Ongoing, perpetual in nature  | WSDA has conducted over the past year a minimum of 3 sessions concerning preparedness for stakeholders. Also WSDA has participated in the outreach for the Green River area. | 2009       | 2011     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency     | Mitigation Goals     | Mitigation Objectives  | Action | Action Item   | Estimated Cost  | Funding Source   | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted  |
|------------------------|----------------------|--|--------|---|---|--|-------------------------------|------------------------------|--|------------|----------|------------------|
| Department of Commerce | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.1  | Develop and promote comprehensive and cost-effective recommendations for local land-use plans and ordinances that reduce the risk of natural hazards, including wildland fire in interface areas. |   |  | On-going, perpetual in nature | Ongoing, perpetual in nature | Natural hazard planning guidebook available on Commerce website. Continue to provide consultation to local governments. Ecology - 2009 session passed law restricting the addition of flood hazard areas into urban growth areas | 2004       |          | F, EQ, WF, SS, T |
| Department of Commerce | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.2  | Expand the number of local governments that include hazard reduction planning into their land-use plans and development regulations.  | DOE - \$120,000/year plus up \$500,000 to \$1 million per biennium in local grants for CFHMPs | DOE – State Flood Control Assistance Account (all CFHMP grants) and FEMA, CAP-SSSE | On-going, perpetual in nature | Ongoing, perpetual in nature | Continue to provide guidance materials and consultation to local governments. Specific data not available.   | 2004       |          | All              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency     | Mitigation Goals         | Mitigation Objectives  | Action | Action Item  | Estimated Cost       | Funding Source   | 2009 Project Status           | 2010 Updated Status           | Comments | Year Added | End Date | Hazard Impacted |
|------------------------|--------------------------|--|--------|--|----------------------|--|-------------------------------|-------------------------------|----------|------------|----------|-----------------|
| Department of Commerce | Goal 1: Protect Life     | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.3  | Develop and promote recommendations for local ordinances to prevent fires in interface areas resulting from fireworks, debris burning, campfires, and other human-caused sources.        | DNR - \$100,000/year | DNR fire prevention budget   | On-going, perpetual in nature | Ongoing, perpetual in nature  |          | 2004       |          | WF              |
| Department of Commerce | Goal 1: Protect Life     | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.4  | Identify and resolve conflicts in laws and regulations that currently prevent effective fuel management in wildland fire interface areas.  | Minimal              | DNR Budget   | On-going, perpetual in nature | On-going, perpetual in nature |          | 2004       |          | WF              |
| Department of Commerce | Goal 2: Protect Property | 2.2 Protect and preserve facility contents                               | 2.2.1  | Develop a pilot project that provides funding or incentives for non-structural seismic mitigation in facilities that serve vulnerable populations (e.g., children, elderly, low income). | Unknown              | State general and capital funds and federal hazard mitigation grants | Pending                       |                               |          | 2004       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency     | Mitigation Goals                | Mitigation Objectives  | Action | Action Item   | Estimated Cost   | Funding Source   | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|------------------------|---------------------------------|--|--------|---|--|--|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Commerce | Goal 4: Protect the Environment | 4.1 Develop hazard mitigation environmental policy                       | 4.1.1  | Develop and implement effective strategies that improve the health of forests and reduce the amount of fuels available for wildland fires from dead and dying trees.                              | \$1,500,000  | National Fire Plan grants  | On-going, perpetual in nature |                              | Will work with DOE and DNR on developing potential policy. Forrester Service conducting new assessment in 2010; that information will be reviewed for this purpose. This issue is also part of the Climate Change policies in progress within the state. | 2009       |          | WF              |
| Department of Ecology  | Goal 1: Protect Life            | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.1  | Develop and promote comprehensive and cost-effective recommendations for local land-use plans and ordinances that reduce the risk of natural hazards, including wildland fire in interface areas. | DOE - \$120,000 per year   | DOE – State Flood Control Assistance Account and FEMA, CAP-SSSE                    | On-going, perpetual in nature | Ongoing, perpetual in nature | 2009 session passed law restricting the addition of flood hazard areas into urban growth areas   | 2004       |          | All             |
| Department of Ecology  | Goal 1: Protect Life            | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.2  | Expand the number of local governments that include hazard reduction planning into their land-use plans and development regulations.  | DOE - \$120,000/year plus up to \$500,000 to \$1 million per biennium in local grants for CFHMPs | DOE – State Flood Control Assistance Account (all CFHMP grants) and FEMA, CAP-SSSE | On-going, perpetual in nature | Ongoing, perpetual in nature | In coordination with Dept. of Commerce, continue to provide guidance materials and consultation to local governments.  | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency    | Mitigation Goals         | Mitigation Objectives  | Action | Action Item   | Estimated Cost   | Funding Source                                 | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|-----------------------|--------------------------|--|--------|---|--|--|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Ecology | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.3  | Update guidelines for comprehensive flood hazard management plans, the state model flood damage prevention ordinance, and policy guidance to reduce flood losses. | \$150 -200,000 for publication and distribution of new guidance document   | State Flood Control Assistance Account Program | On-going, perpetual in nature | Ongoing, perpetual in nature | Ecology secured a 100% increase in funding in the Gov's budget for 2009-11. However, the Legislative budget not only dropped the additional funding but also cut the operating budget by 50%. Ecology, EMD and FEMA Region X will work to coordinate planning efforts for flood management plans and the flood portion of the HMP. | 2004       |          | F               |
| Department of Ecology | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.4  | Encourage communities to record high water marks to improve or update flood maps or develop other measures to reduce flood damage.                                | No specific costs established for high water mark recording. Map updates will be accomplished through the FEMA Map Modernization process | FEMA Map Modernization Program funds           | On-going, perpetual in nature | Ongoing, perpetual in nature | Will work with existing programs in place (CoCoRas, Silver Jackets, RiskMap) to determine feasibility of establishing training to capture perishable data.   | 2004       |          | F               |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency    | Mitigation Goals         | Mitigation Objectives   | Action | Action Item  | Estimated Cost   | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted  |
|-----------------------|--------------------------|---|--------|--|--|---|-------------------------------|------------------------------|---|------------|----------|------------------|
| Department of Ecology | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding  | 2.3.5  | Seek additional resources to expand Flood Control Assistance Account Program.  | \$4 million available in 2007-09 biennium  | State general fund  | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2004       |          | F                |
| Department of Ecology | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding. | 2.3.1  | Help communities identify repetitive and severe repetitive loss properties and obtain potential funding for mitigation for those properties. | \$50,000/ year in staff, \$500,000 or more in grants to locals for repetitive loss property acquisition per biennium | State Flood Control Assistance Account Program (all grants) and FEMA CAP-SSSE | On-going, perpetual in nature | Ongoing, perpetual in nature | Funding for FCAAP was reduced during the 2010 Budget. Will continue to work with EMD to enhance flood mitigation efforts.   | 2004       |          | F, EQ, WF, SS, T |
| Department of Ecology | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding. | 2.3.2  | Streamline the permitting and funding processes for flood damage reduction and stream improvement projects.                                  | \$3 million available for local grants from FCAAP per biennium   | State Flood Control Assistance Account Program                                | On-going, perpetual in nature | Ongoing, perpetual in nature | This has been accomplished by several communities in events since 2007. For example, Lewis County and cities with technical and resource assistance from Ecology recorded HWMs that have assisted in their remapping process. | 2004       |          | F                |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                | Mitigation Goals                                   | Mitigation Objectives                                 | Action | Action Item  | Estimated Cost  | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-----------------------------------|--|---|--------|--|---|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Department of Ecology             | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.1  | Continue Map Modernization Project to ensure that hydraulic analysis of watersheds and updated flood maps use the most current modeling available in order to provide an accurate portrayal of anticipated flood conditions. | \$120,000/year in staff costs and \$3-5 million in mapping costs over life of project | FEMA Map Modernization Program funds – CTP, and Map Mod Management Support (MMMS) funds | On-going, perpetual in nature | Ongoing, perpetual in nature | Ecology continues to coordinate with FEMA as a CTP on completing Map Modernization projects with all major population counties completed or in process. Also, Ecology published a lay person's guide to understanding rivers, <i>Living with the River</i> , Pub. #07-06-016. Over 10,000 copies have been distributed. | 2004       |          | F               |
| Department of Employment Security | Goal 2: Protect Property                           | 2.1 Protect critical assets                           | 2.1.12 | Support the seismic retrofit and/or storm proofing of existing Critical Facilities as needed/funded  | TBD   | TBD   | Pending                       | Pending                      | Budget constraints hampering projects.  | 2009       |          | EQ, F, SS       |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost      | Funding Source | 2009 Project Status           | 2010 Updated Status           | Comments  | Year Added | End Date | Hazard Impacted |
|-----------------------------------|--|--|--------|--|---------------------|----------------|-------------------------------|-------------------------------|---|------------|----------|-----------------|
| Department of Employment Security | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.11 | Review each facility's lease to ensure it addresses which party is responsible for repairing damage to the building, tenant improvements, mechanical systems, parking areas, etc. Determine whether the agency or the landlord carries hazard insurance. | TBD                 | TBD            | In-progress                   | On-going, perpetual in nature | Anticipate a 6/30/10 completion.                                      | 2009       | 2010     | All             |
| Department of Employment Security | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.7  | Facilitate the review of existing emergency response plans for potential enhancement with respect to natural and man-made Hazard Mitigation activities.  | No incremental cost | N/A            | On-going, perpetual in nature | On-going, perpetual in nature | Emergency response plans are reviewed and updated in a timely manner. | 2009       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                   | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost   | Funding Source                                 | 2009 Project Status           | 2010 Updated Status           | Comments   | Year Added | End Date | Hazard Impacted |
|--------------------------------------|--|--|--------|--|--|--|-------------------------------|-------------------------------|--|------------|----------|-----------------|
| Department of Employment Security    | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.8  | Distribute pamphlets and associated hazard mitigation informational materials to all staff.  | No incremental cost  | N/A  | On-going, perpetual in nature | On-going, perpetual in nature | All hazard mitigation information is shared with appropriate staff.  | 2009       |          |                 |
| Department of Fish and Wildlife      | Goal 2: Protect Property                           | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding.                                    | 2.3.2  | Streamline the permitting and funding processes for flood damage reduction and stream improvement projects.  | \$3 million available for local grants from FCAAP per biennium | State Flood Control Assistance Account Program | On-going, perpetual in nature |                               |  | 2009       |          |                 |
| Department of General Administration | Goal 1: Protect Life                               | 1.2 Develop or amend laws so they effectively address hazard mitigation.   | 1.2.5  | Request that Governor's Office create executive order requiring state agencies to include hazard mitigation actions into owned & leased structures upon first occupancy, into renovation of existing structures, & into the design or redesign of interior work spaces | \$0  | N/A  | On-going, perpetual in nature | Ongoing, perpetual in nature  | This project is in coordination with several other state agencies. EMD and agencies will work with Governor's Policy Advisor on this issue during next 3 year cycle. At this time, GA has no expected deliverables related to this item. | 2010       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                   | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item   | Estimated Cost | Funding Source   | 2009 Project Status           | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|--------------------------------------|--------------------------|--|--------|---|----------------|--|-------------------------------|---------------------|---|------------|----------|-----------------|
| Department of General Administration | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.1  | In partnership with EMD, OFM and GA, state agencies are to prioritize structural and non-structural retrofits for critical state-owned facilities based on their vulnerability to natural hazards.                      | Unknown        | Prioritization would have minimal cost. Retrofit projects could be funded with state capital funds and/or federal mitigation grants. | On-going, perpetual in nature | In-progress         | EMD is in the process of building a database of facilities that will be mapped based on hazard risk zones. When database is complete, agencies with facilities in risk zones will be questioned more specifically concerning retrofits and any suggested recommendations. | 2004       |          |                 |
| Department of General Administration | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.2  | In partnership with EMD, OFM and GA, state agencies and the state's colleges and universities should assess the seismic safety of facilities in high-risk areas and develop recommendations to mitigate seismic hazards | Unknown        | State general and capital funds, federal mitigation grants   | In-progress                   | Pending             | Based on recommendations stemming from the risk database list (See 2.1 above), GA may oversee construction project management for state agencies and higher education institutions.   | 2004       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                   | Mitigation Goals         | Mitigation Objectives   | Action | Action Item   | Estimated Cost | Funding Source   | 2009 Project Status | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|--------------------------------------|--------------------------|---|--------|---|----------------|--|---------------------|---------------------|---|------------|----------|-----------------|
| Department of General Administration | Goal 2: Protect Property | 2.2 Protect and preserve facility contents                    | 2.2.3  | In partnership with EMD, OFM and GA, agencies and higher education should identify funding strategies to speed up mitigation of identified seismic hazards in vulnerable state agency facilities and the state's colleges and universities. | Unknown        | State general and capital funds, federal mitigation grants           | In-progress         | Pending             | In coordination with several other agencies and the Governor's Policy Advisor, will work on this issue during next three year update cycle. (At this time, GA has no expected deliverables related to this item.) | 2010       | 2013     | All             |
| Department of Health                 | Goal 2: Protect Property | 2.2 Protect and preserve facility contents                    | 2.2.1  | Develop a pilot project that provides funding or incentives for non-structural seismic mitigation in facilities that serve vulnerable populations (e.g., children, elderly, low income).  | Unknown        | State general and capital funds and federal hazard mitigation grants |                     |                     |   | 2004       |          | EQ              |
| Department of Information Services   | Goal 1: Protect Life     | 1.1 Improve systems that provide warning & EM Communications. | 1.1.17 | Develop statewide Strategic Interoperability Communications Solution.   |                |  |                     | New                 |   | 2010       | 2013     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                 | Mitigation Goals                      | Mitigation Objectives                     | Action | Action Item   | Estimated Cost  | Funding Source      | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|------------------------------------|---------------------------------------|---|--------|---|---|---------------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Information Services | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations | 3.2.5  | Develop a plan and seek funding for installing backup telecommunication systems in critical state-owned facilities.   | One-time expenses, for equipment and consulting, are \$606,010 in 2007-09 biennium. Ongoing funding FY08: \$3 million FY09: \$2.7 million |                     | On-going, perpetual in nature | Ongoing, perpetual in nature | This is a work in progress in coordination with and support of other state agencies.           | 2007       |          | All             |
| Department of Information Services | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations | 3.2.6  | Help state agencies develop, implement and test mandated plans to ensure their information technology infrastructure are protected against service interruptions, including those caused by large-scale disasters | Not available   | State general funds | On-going, perpetual in nature | Ongoing, perpetual in nature | DIS has worked with and will continue to exercise with state agencies to determine weaknesses. | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                 | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                              | Funding Source                             | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|------------------------------------|--|--|--------|--|---|--|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Information Services | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.11 | Ensure office emergency supply kit is updated (3-day survival kits for DIS).   | MEC-\$50, DIS-\$2500 per year, ERFC - \$200 | MEC-State general fund, DIS-DR Cost Center | On-going, perpetual in nature | Ongoing, perpetual in nature | Last update April 2009. We continue this process annually to ensure all employees have kits available to them. | 2009       |          | All             |
| Department of Information Services | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.18 | Ensure appropriate training accomplished: Family Preparedness on 3 yr rotation & ICS training for Management & Emergency Personnel.  | N/A   | N/A  | On-going, perpetual in nature | Ongoing, perpetual in nature | Last update April 2009.  | 2009       |          | All             |
| Department of Labor and Industries | Goal 1: Protect Life                               | 1.5 Train emergency responders   | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator |   | State general fund                         | On-going, perpetual in nature | Ongoing, perpetual in nature |  | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                 | Mitigation Goals         | Mitigation Objectives  | Action | Action Item  | Estimated Cost                                 | Funding Source    | 2009 Project Status                    | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|------------------------------------|--------------------------|--|--------|--|--|-------------------|--|------------------------------|---|------------|----------|-----------------|
| Department of Labor and Industries | Goal 2: Protect Property | 2.1 Protect critical assets  | 2.1.6  | Design and build new emergency supply storage shed. Building also will be used as a command post. It will be shared with neighboring building. | \$265,000                                      | Agency funds      | Completed (add date in comments field) | Ongoing, perpetual in nature | This project is in coordination with several other state agencies as a combined effort. Connex boxes have been established in various locations through the main campus of the Capitol. These boxes contain materials necessary for continuity of government should a disaster occur. | 2007       |          | All             |
| Department of Labor and Industries | Goal 2: Protect Property | 2.2 Protect and preserve facility contents   | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | L&I – Varying cost per item, total unavailable | L&I- Agency funds | On-going, perpetual in nature          | Ongoing, perpetual in nature | This occurs regularly as employees move or new employees are hired.   | 2007       |          | EQ              |
| Department of Labor and Industries | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.8  | Conduct routine parking lot patrols during severe weather conditions to ensure storm drains are not clogged, reducing flooding opportunities.  | No additional costs                            | Not available     | On-going, perpetual in nature          | Ongoing, perpetual in nature |   | 2007       |          | SS, F           |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                 | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost                                       | Funding Source   | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|------------------------------------|--|--|--------|---|--|------------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Department of Labor and Industries | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.3  | Conduct periodic review or an update business continuity/resumption or disaster recovery plans                          | ERFC – \$0<br>L&I – N/A<br>UTC – No incremental cost | L&I – N/A        | Ongoing                       | Ongoing, perpetual in nature | These plans are reviewed and modified as necessary to ensure continued business operations.   | 2007       |          | All             |
| Department of Labor and Industries | Goal 3: Promote a Sustainable Economy              | 3.3 Form partnerships to leverage & share resources  | 3.3.1  | Establish arrangements with off-site organizations to share facilities, personnel and equipment in event of a disaster. | \$0  | General budget   | On-going, perpetual in nature | In-progress                  | This is a shared responsibility with other state agencies. This has been addressed extensively within the Green River Valley due to Howard Hanson Dam | 2007       |          | All             |
| Department of Labor and Industries | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.4  | Disseminate disaster preparedness and emergency information to constituents (e.g., faculty, staff, student).            | L&I - minimal, cost of any supplies                  | L&I-Agency funds | On-going, perpetual in nature | Ongoing, perpetual in nature | This is done during drills and exercises, as new employees are hired, and during annual Safety Fair at Capitol Campus                                 | 2007       |          | All             |
| Department of Licensing            | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications.  | 1.1.13 | Purchase and use NOAA Weather Radio to keep informed of local watches/warnings  | \$2,000  | DOL Budget       | In-progress                   | Ongoing, perpetual in nature | Budget constraints  | 2009       |          | All             |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency      | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item  | Estimated Cost  | Funding Source           | 2009 Project Status  | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------|--------------------------|--|--------|--|---|--------------------------|--|------------------------------|---|------------|----------|-----------------|
| Department of Licensing | Goal 1: Protect Life     | 1.5 Train emergency responders             | 1.5.4  | Conduct and participate in emergency drills and exercises.   | Unknown   | General budget           | Ongoing. SPSCC developing all-hazard college-wide exercise program | Ongoing, perpetual in nature | Now working with DOP. Participate in exercises to train personnel as able. Agency has been part of the HHD planning team. | 2007       |          | All             |
| Department of Licensing | Goal 1: Protect Life     | 1.5 Train emergency responders             | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator |   |                          |  | Ongoing, perpetual in nature |   | 2007       |          |                 |
| Department of Licensing | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.21 | Consider the relocation of field offices that could be affected by a landslide   | \$50,000  | Unfunded                 | On-going, perpetual in nature                                      | Ongoing, perpetual in nature | HHD Project   | 2009       |          | F, LS           |
| Department of Licensing | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | DOL --\$3500 to survey items, \$8500 to restrain computer equipment | DOL – State general fund |  | Ongoing, perpetual in nature | Most field offices have become familiar with local warnings and plan  | 2007       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency      | Mitigation Goals                                   | Mitigation Objectives                                 | Action | Action Item   | Estimated Cost | Funding Source | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------|--|---|--------|---|----------------|----------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Licensing | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents            | 2.2.15 | Store items vulnerable to flood damage above the flood level  | \$1200         | DOL budget     | On-going, perpetual in nature | Pending                      | Some items are stored in Connex boxes on Capitol Complex.  | 2009       |          | All             |
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.2  | Establish a funded program for state agency or peer review of geotechnical and geologic reports to ensure their accuracy and basis on best available science. |                | GSF            | Pending                       | Ongoing, perpetual in nature | Continuing effort for Capitol Campus facilities  | 2004       |          | All             |
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.6  | Become familiar with tsunami and volcano warning signs and community emergency plans  | N/A            | N/A            | On-going, perpetual in nature | Ongoing, perpetual in nature | Licensing, Ongoing - Purposing new First Aid/CPR Program to increase staff capabilities. LCB, Removed - Focus was on H1N1 and Howard Hanson Dam mitigation 2010. | 2009       | 2010     | EQ, T           |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency      | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                 | Funding Source   | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------|--|--|--------|--|--------------------------------|------------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.6  | Ensure all employees are knowledgeable about agency emergency procedures (including evacuation routes) and maintain emergency supplies at desk | DOL-\$5000 (disaster supplies) | DOL-general fund | On-going, perpetual in nature | Ongoing, perpetual in nature | Have added significant info to DOL Safety Web Pages  | 2009       |          | All             |
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.9  | Increase potential natural hazard awareness through training and education   | DOL-\$30/person                | General fund     | In-progress                   | Ongoing, perpetual in nature | Agency has participated in exercises during 2007-2010 cycle; has also been part of the HHD planning committee to raise public awareness of issue and assist in developing strategies to mitigate potential damages | 2009       |          | All             |
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.15 | Upgrade emergency response equipment and training  | Undetermined                   | DOL budget       | In-progress                   | Pending                      |  | 2009       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency      | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------|--|--|--------|--|----------------|----------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.16 | Expand and support the Capitol Campus Emergency Response Team  | Unknown        | Unknown        | On-going, perpetual in nature | Ongoing, perpetual in nature | Most workstations have emergency supplies. Have ordered kits for others. | 2009       | 2010     | All             |
| Department of Licensing | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.21 | Consolidate emergency supply containers around Capitol Campus into three strategically placed buildings that will house multiple agencies' emergency supply cache. | Unknown        | Grants         |                               | New                          | This strategy is in coordination with several other state agencies.      | 2010       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals     | Mitigation Objectives  | Action | Action Item  | Estimated Cost           | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------------|----------------------|--|--------|--|--------------------------|---|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Natural Resources | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications.            | 1.1.5  | Develop maps with information on land ownership, response boundaries, roads, and other features to allow fire fighting agencies to adequately prepare for response to wildland fires in interface areas. | Variable                 | DNR Resource Protection budget  | On-going, perpetual in nature | Ongoing, perpetual in nature | This project is in coordination with other federal and local agencies and jurisdictions. A new study will be conducted during 2010 which will enhance this data. | 2004       |          | WF              |
| Department of Natural Resources | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.1  | Develop and promote comprehensive and cost-effective recommendations for local land-use plans and ordinances that reduce the risk of natural hazards, including wildland fire in interface areas.        | DNR - \$150,000 per year | DNR – State general funds, National Fire Plan grants DOE - State flood control assistance | On-going, perpetual in nature | Ongoing, perpetual in nature |  | 2004       |          | WF              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals     | Mitigation Objectives  | Action | Action Item   | Estimated Cost       | Funding Source                          | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------------|----------------------|--|--------|---|----------------------|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Department of Natural Resources | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.3  | Develop and promote recommendations for local ordinances to prevent fires in interface areas resulting from fireworks, debris burning, campfires, and other human-caused sources. | DNR - \$100,000/year | DNR fire prevention budget              | On-going, perpetual in nature | Ongoing, perpetual in nature | New laws become effective July 1, 2010 which were adopted by the SBCC. This is addressed annually by the legislature. | 2004       | 2010     | WF              |
| Department of Natural Resources | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.4  | Identify and resolve conflicts in laws and regulations that currently prevent effective fuel management in wildland fire interface areas.   | Minimal              | DNR Budget                              | On-going, perpetual in nature | Ongoing, perpetual in nature | New laws become effective July 1, 2010 which were adopted by the SBCC. This is addressed annually by the legislature. | 2004       |          | WF              |
| Department of Natural Resources | Goal 1: Protect Life | 1.5 Train emergency responders   | 1.5.1  | Deliver standardized training on wildland fires to firefighters responding to fires in interface areas.   | \$2,400,000          | DNR Resource Protection training budget | On-going, perpetual in nature |                              | Department of Natural Resources has an agreement with WSP that they will provide all of the wildland fire training.   | 2004       |          | WF              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost   | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|--|--------|--|--|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Department of Natural Resources | Goal 2: Protect Property                           | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.1  | Help communities identify repetitive and severe repetitive loss properties and obtain potential funding for mitigation for those properties.                         | \$50,000/ year in staff, \$500,000 or more in grants to locals for repetitive loss property acquisition per biennium | State Flood Control Assistance Account Program (all grants) and FEMA CAP-SSSE | On-going, perpetual in nature |                              | Funding for FCAAP was reduced during the 2010 Budget. Will continue to work with EMD to enhance flood mitigation efforts. | 2004       |          | F               |
| Department of Natural Resources | Goal 4: Protect the Environment                    | 4.1 Develop hazard mitigation environmental policy                                     | 4.1.1  | Develop and implement effective strategies that improve the health of forests and reduce the amount of fuels available for wildland fires from dead and dying trees. | \$1,500,000  | National Fire Plan grants   | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2009       |          |                 |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose                                  | 5.1.2  | Establish a funded program for state agency or peer review of geotechnical and geologic reports to ensure their accuracy and basis on best available science.        |  | GSF   | Pending                       | Pending                      |   | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives                                 | Action | Action Item  | Estimated Cost  | Funding Source                                  | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|---|--------|--|---|---|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.3  | Seek additional funding for the state's geologic survey for research to improve understanding of the threats posed by earthquakes, landslides, and other geologic hazards in Washington. | \$1 million/year  | GFS   | On-going, perpetual in nature | Ongoing, perpetual in nature | Some funding received by USGS for a 2010 Lahar study for Mount Rainier.      | 2004       |          | EQ, L, A, V     |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.4  | Seek additional funding for maintenance and expansion of the Pacific Northwest Seismic Network (PNSN), and for deploying the Advanced National Seismic System.                           | \$400,000/year (State general fund); \$1.5 million (US Geological Survey) | State general fund, US Geological Survey        | On-going, perpetual in nature |                              |  | 2004       |          | EQ              |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.5  | Obtain funding to complete tsunami modeling for all coastal areas of the state, including Puget Sound.   | \$200,000   | NOAA National Tsunami Hazard Mitigation Program | On-going, perpetual in nature | In-progress                  | As of 2010, modeling has been completed for some of the coastal communities. | 2004       |          | T, F            |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives                              | Action | Action Item  | Estimated Cost  | Funding Source  | 2009 Project Status               | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|--|--------|--|-----------------|---|-----------------------------------|---------------------|---|------------|----------|-----------------|
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps | 5.2.1  | Develop and maintain an inventory of existing geographical databases for natural hazards.  | \$100,000/year  | State general fund, US Geological Survey                            | On-going, perpetual in nature     | In-progress         | DNR working on several databases during 2009-2010 timeframe.  | 2004       |          | All             |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps | 5.2.2  | Accelerate mapping of natural hazard areas around the state, including tsunami inundation areas in coastal areas, and develop GIS-compatible database products for them. | \$1million/year | State general fund, NOAA National Tsunami Hazard Mitigation Program | Other (explain in comments field) | In-progress         | Enhanced landslide database extensively during 2007-2010 update cycle with info received during various flooding events which caused extensive landslides throughout state. | 2004       |          | All             |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps | 5.2.3  | Develop and maintain a central repository of geotechnical, geologic and hydrologic historical data.  | \$100,000/year  | GFS   | Other (explain in comments field) | In-progress         | Some database information has been captured during 2007-2010 cycle, but much work still needs to be done.   | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                      | Funding Source                         | 2009 Project Status           | 2010 Updated Status          | Comments | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|--|--------|--|-------------------------------------|--|-------------------------------|------------------------------|----------|------------|----------|-----------------|
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.2  | Develop and maintain a comprehensive public education program that increases awareness of the wildland interface fire risk and promotes actions that reduce the risk of fire to life and property. | Fire Risk website update - \$50,000 | National Fire Plan grant and DNR funds | On-going, perpetual in nature | Ongoing, perpetual in nature |          | 2004       |          | WF              |
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.3  | Expand the concept of the disaster information clearinghouse (e.g., Nisqually Earthquake Clearinghouse) into a multi-hazard information center   | Approx \$20K at this time           | GFS (DNR)                              | In-progress                   |                              |          | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals                                   | Mitigation Objectives   | Action | Action Item  | Estimated Cost | Funding Source          | 2009 Project Status  | 2010 Updated Status          | Comments                                 | Year Added | End Date | Hazard Impacted |
|---------------------------------|--|---|--------|--|----------------|-------------------------|--|------------------------------|--|------------|----------|-----------------|
| Department of Natural Resources | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.   | 5.4.1  | Research and develop the rationale for a permanent state organization (board, commission, etc.) to establish, coordinate, and evaluate state policy on seismic safety. | Not available  | GFS                     | In-progress  | In-progress                  | Seismic Safety Committee again in place. | 2009       |          | EQ              |
| Department of Revenue           | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications. | 1.1.15 | Purchase two-way MHz radios for the Emergency Response Teams   | \$8,000        | General Fund, HM Grants | Initiated  | Ongoing, perpetual in nature |  | 2009       |          | All             |
| Department of Revenue           | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications. | 1.1.16 | GET's Card or Priority Cell cards for Emergency Response Team  | \$7200 / yr    | General Fund            | Initiated  | Ongoing, perpetual in nature |  | 2009       |          | All             |
| Department of Revenue           | Goal 1: Protect Life                               | 1.5 Train emergency responders                                | 1.5.4  | Conduct and participate in emergency drills and exercises.   |                | General Fund            | Ongoing. SPSCC developing all-hazard college-wide exercise program | Ongoing, perpetual in nature |  | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency    | Mitigation Goals         | Mitigation Objectives          | Action | Action Item  | Estimated Cost      | Funding Source     | 2009 Project Status           | 2010 Updated Status          | Comments | Year Added | End Date | Hazard Impacted |
|-----------------------|--------------------------|--------------------------------|--------|--|---------------------|--------------------|-------------------------------|------------------------------|----------|------------|----------|-----------------|
| Department of Revenue | Goal 1: Protect Life     | 1.5 Train emergency responders | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator |                     |                    |                               | Ongoing, perpetual in nature |          | 2004       |          | All             |
| Department of Revenue | Goal 2: Protect Property | 2.1 Protect critical assets    | 2.1.10 | Redirect data communications line underground to remove it from an above-ground crossing over a busy arterial  | \$20,000            | State general fund | Pending                       | Pending                      |          | 2009       |          | All             |
| Department of Revenue | Goal 2: Protect Property | 2.1 Protect critical assets    | 2.1.11 | Review procedures to ensure furniture acquisitions, building remodels and other purchases consider seismic hazards.  | No incremental cost |                    | On-going, perpetual in nature | Ongoing, perpetual in nature |          | 2009       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency    | Mitigation Goals                      | Mitigation Objectives                      | Action | Action Item  | Estimated Cost  | Funding Source               | 2009 Project Status           | 2010 Updated Status          | Comments                     | Year Added | End Date | Hazard Impacted |
|-----------------------|---------------------------------------|--|--------|--|---|------------------------------|-------------------------------|------------------------------|------------------------------|------------|----------|-----------------|
| Department of Revenue | Goal 2: Protect Property              | 2.1 Protect critical assets                | 2.1.23 | Have an engineer conduct a disaster-resistant assessment of critical facilities and develop plan to improve vulnerable structures. | \$25,000  | General Fund, HM Grants      | Pending                       | Pending                      |                              | 2009       |          | All             |
| Department of Revenue | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | Revenue – \$10,000  | Revenue – State general fund |                               | Ongoing, perpetual in nature | This is conducted regularly. | 2007       |          | EQ              |
| Department of Revenue | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.16 | Apply safety film to large windows on critical facilities to keep operational.   | \$50,000  | General Fund, HM Grants      | Pending                       | Pending                      |                              | 2009       |          |                 |
| Department of Revenue | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.9  | Establish redundant systems or dual connections for telecommunications networks, computing systems, and electrical power.          | \$3.1 Million (\$747,000/yr for maintenance agreements and leases.) | GFS or HM Grants             | On-going, perpetual in nature | Ongoing, perpetual in nature |                              | 2009       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency    | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-----------------------|--|--|--------|--|----------------|----------------|---------------------|------------------------------|---|------------|----------|-----------------|
| Department of Revenue | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.10 | Implement COOP through mutual aid agreements w/ L&I and EHO, redundant systems, and copies of critical documents | \$25,000       | GFS/HM Grants  | In-progress         | Ongoing, perpetual in nature |   | 2009       |          | All             |
| Department of Revenue | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.11 | Install backup power supply to electronic building lock systems  | \$25,000       | GFS/HM grants  | Pending             | Pending                      |   | 2009       |          | All             |
| Department of Revenue | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.9  | Increase potential natural hazard awareness through training and education                                       | \$15,000       | General fund   | In-progress         | Ongoing, perpetual in nature | This is done during drills and exercises, as new employees are hired, and during annual Safety Fair at Capitol Campus | 2009       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                       | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source                      | 2009 Project Status           | 2010 Updated Status          | Comments                           | Year Added | End Date | Hazard Impacted |
|--|--|--|--------|--|----------------|-------------------------------------|-------------------------------|------------------------------|------------------------------------|------------|----------|-----------------|
| Department of Revenue                    | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.19 | Provide emergency supply cabinets at HQ buildings to include first aid supplies, hardware, generator/power inverter, water, safety equipment, pop up canopy, laptops, etc. | \$75,000       | General Fund, HM Grants             | On-going, perpetual in nature | Ongoing, perpetual in nature |                                    | 2009       |          | All             |
| Department of Revenue                    | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.20 | Conduct earthquake preparedness through attaching furniture to walls, securing equipment & small items, latches on drawers, etc  | \$25,000       | General Fund, HM Grants             | In-progress                   | Ongoing, perpetual in nature | This is done on an on-going basis. | 2009       |          | EQ              |
| Department of Social and Health Services | Goal 2: Protect Property                           | 2.1 Protect critical assets  | 2.1.13 | Implement safety management improvements through mitigation activities, establishing an Emergency Response Team Program, and other preventative actions                    | \$500,000      | State Building Construction Account | In-progress                   |                              |                                    | 2009       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                              | Mitigation Goals                | Mitigation Objectives              | Action        | Action Item  | Estimated Cost | Funding Source                          | 2009 Project Status | 2010 Updated Status | Comments | Year Added  | End Date | Hazard Impacted |
|---|---------------------------------|------------------------------------|---------------|--|----------------|---|---------------------|---------------------|----------|-------------|----------|-----------------|
| Department of Social and Health Services        | Goal 2: Protect Property        | 2.1 Protect critical assets        | 2.1.15        | Install emergency generator and associated wiring to various bldgs. at Yakima Valley School & Lakeland Village | \$1M & \$2.5M  | State Building Construction Fund        | In-progress         | Tabled              |          | 2009        |          | All             |
| <i>Department of Social and Health Services</i> | <i>Goal 2: Protect Property</i> | <i>2.1 Protect critical assets</i> | <i>2.1.16</i> | <i>Remove existing Green Hill School IMU out of 100 year floodplain to higher ground</i>                       | <i>\$7M</i>    | <i>State Building Construction Fund</i> | <i>In-progress</i>  | <i>Pending</i>      |          | <i>2009</i> |          | <i>F</i>        |
| Department of Social and Health Services        | Goal 2: Protect Property        | 2.1 Protect critical assets        | 2.1.17        | Stabilize steep slopes above Garrison Creek to protect critical hospital structures                            | \$1M           | State Building Construction Fund        | In-progress         | Tabled              |          | 2009        |          | L, F, EQ        |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                       | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item  | Estimated Cost | Funding Source   | 2009 Project Status | 2010 Updated Status          | Comments | Year Added | End Date | Hazard Impacted |
|--|--------------------------|--|--------|--|----------------|--|---------------------|------------------------------|----------|------------|----------|-----------------|
| Department of Social and Health Services | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.17 | Establish working group with other agencies to establish method for determining which assets are most critical during disaster. Once method established, group will review facilities and revise current list within strategies based on the findings of the 2010-2013 study | Unknown        | State Building Construction Fund                                     | In-progress         | New                          |          | 2010       | 2013     | All             |
| Department of Social and Health Services | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.1  | Develop a pilot project that provides funding or incentives for non-structural seismic mitigation in facilities that serve vulnerable populations (e.g., children, elderly, low income).   | Unknown        | State general and capital funds and federal hazard mitigation grants | Pending             | Ongoing, perpetual in nature |          | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                       | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost   | Funding Source                   | 2009 Project Status | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|--|--|--|--------|--|--|----------------------------------|---------------------|------------------------------|---|------------|----------|-----------------|
| Department of Social and Health Services | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.9  | Increase potential natural hazard awareness through training and education   | DSHS- Part of \$500,000 fund from item 2.1.13  | DSHS-State Building Construction | In-progress         | Ongoing, perpetual in nature | This is an on-going event. DSHS has been heavily involved in the planning for mass care for potential evacuees from the HHD/Green River Valley,   | 2009       |          | All             |
| Department of Transportation             | Goal 2: Protect Property                           | 2.1 Protect critical assets  | 2.1.3  | Develop a plan to complete seismic retrofit projects on vulnerable bridges in important state transportation corridors | Legislature has currently funded \$123 million for seismic retrofit of bridge columns. WSDOT will provide a 2009-11 budget request with useable increments | State Transportation Budget      | In-progress         | New                          | The seismic retrofit plan is complete, some structures have been retrofitted and others will be done as planned when funds are available. Identification of additional funding sources are also being sought. | 2009       | 22011    | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency           | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item  | Estimated Cost   | Funding Source                     | 2009 Project Status           | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|------------------------------|--------------------------|--|--------|--|------------------|------------------------------------|-------------------------------|---------------------|---|------------|----------|-----------------|
| Department of Transportation | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.24 | Develop a plan to install a remote avalanche control system along key transportation routes through mountain passes to help keep public travelers and freight haulers safe and the economy moving. |                  |                                    | In-progress                   | In-progress         | A grant proposal was submitted however insufficient funds were available from this grant to allow for consideration of this project. Additional funding sources will be pursued.  | 2004       |          | A, L            |
| Department of Transportation | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.25 | Upgrade WSDOT facilities across the state which have been identified as being in hazard prone areas.   | Unknown          | Unknown                            | On-going, perpetual in nature | Pending             | Most WSDOT facility locations across the state have been reviewed to identify which may be in hazard prone areas. As Capital Programs are reviewed and prioritized mitigation efforts for the vulnerable facilities will be considered and, if funding permits, addressed | 2009       |          | All             |
| Department of Transportation | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.4  | Develop a real-time monitoring program (SHAKECAST) for critical state bridges and make the data available for use in regional shake maps   | \$60,000 to date | State general fund; federal grants | On-going, perpetual in nature | Pending             | Many agencies and entities are involved in the completion of the complex SHAKECAST program. Funding for this project in all areas (to include WSDOT) continues to inhibit hours of work being dedicated to data collection and other parts of the                         | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                    | Mitigation Goals     | Mitigation Objectives          | Action | Action Item  | Estimated Cost | Funding Source               | 2009 Project Status | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------------------|----------------------|--------------------------------|--------|--|----------------|------------------------------|---------------------|------------------------------|--|------------|----------|-----------------|
|                                       |                      |                                |        |  |                |                              |                     |                              | program.   |            |          |                 |
| Economic and Revenue Forecast Council | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.4  | Conduct and participate in emergency drills and exercises.   |                |                              |                     | Ongoing, perpetual in nature | Agency has participated in exercises during 2007-2010 cycle; has also been part of the HHD planning committee to raise public awareness of issue and assist in developing strategies to mitigate potential damages | 2007       |          | All             |
| Economic and Revenue Forecast Council | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator | ERFC - \$250   | Revenue - State general fund |                     | Ongoing, perpetual in nature |  | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                    | Mitigation Goals                      | Mitigation Objectives                      | Action | Action Item  | Estimated Cost                                  | Funding Source            | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------------------|---------------------------------------|--|--------|--|---|---------------------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Economic and Revenue Forecast Council | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking                  | ERFC - Varying cost per item, total unavailable | ERFC – State general fund | On-going, perpetual in nature | Ongoing, perpetual in nature | This is regularly conducted as offices/personnel move.   | 2007       |          | EQ              |
| Economic and Revenue Forecast Council | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents | 2.2.10 | Review records retention and management policies.  | \$0   | Not applicable            | On-going, perpetual in nature | Ongoing, perpetual in nature |  | 2009       |          | All             |
| Economic and Revenue Forecast Council | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.3  | Conduct periodic review or an update business continuity/resumption or disaster recovery plans | No incremental cost                             | N/A                       | Ongoing                       | Ongoing, perpetual in nature |  | 2007       |          | All             |
| Economic and Revenue Forecast Council | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.7  | Make regular backups of critical electronic data.  | Nominal   | GFS                       | On-going, perpetual in nature | Pending                      | The lack of IT staff has delayed implementation. Agency has invested in an external hard drive specific to this project and is pending action. Estimated time of completion is before July 2010. | 2007       | 22010    | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                    | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                   | Funding Source                             | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---------------------------------------|--|--|--------|--|----------------------------------|--|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Economic and Revenue Forecast Council | Goal 3: Promote a Sustainable Economy              | 3.3 Form partnerships to leverage & share resources  | 3.3.1  | Establish arrangements with off-site organizations to share facilities, personnel and equipment in event of a disaster.                        | \$0                              | n/a  | On-going, perpetual in nature | Ongoing, perpetual in nature | This project is in coordination with several other state agencies, and is currently in progress. Several Connex boxes have been placed campus wide for use during a disaster. | 2007       |          | All             |
| Economic and Revenue Forecast Council | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.6  | Ensure all employees are knowledgeable about agency emergency procedures (including evacuation routes) and maintain emergency supplies at desk | ERFC-Minimal (disaster supplies) | ERFC-N/A DOL-general fund                  | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2007       |          | All             |
| Economic and Revenue Forecast Council | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.11 | Ensure office emergency supply kit is updated (3-day survival kits for DIS).   | \$200                            | MEC-State general fund, DIS-DR Cost Center | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals     | Mitigation Objectives  | Action | Action Item   | Estimated Cost  | Funding Source   | 2009 Project Status           | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|----------------------|--|--------|---|---|--|-------------------------------|---------------------|---|------------|----------|-----------------|
| Emergency Management Division | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications.            | 1.1.1  | Develop a plan and seek funding to expand the pilot All-Hazard Alert Broadcasting (AHAB) radio local warning system statewide.                  | \$2.76 million to date  | NOAA National Tsunami Hazard Mitigation Program,                                   | On-going, perpetual in nature | In-progress         | Systems in place primarily in Tsunami vulnerable communities; 10 additional systems installed during 2009; continue working with communities to install 2 additional systems during 2010 and each year thereafter based upon funding. | 2004       | 2033     | T, SS,          |
| Emergency Management Division | Goal 1: Protect Life | 1.1 Improve systems that provide warning & EM Communications.            | 1.1.4  | Develop a plan to install satellite-based, real-time tsunami and earthquake information systems in county and city emergency operation centers. | \$30,000 as of May 2010   | EMPG, NOAA National Tsunami Hazard Mitigation Program                              | On-going, perpetual in nature | In-progress         |   |            |          | T, EQ           |
| Emergency Management Division | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.2  | Expand the number of local governments that include hazard reduction planning into their land-use plans and development regulations.            | DOE - \$120,000/year plus up \$500,000 to \$1 million per biennium in local grants for CFHMPs | DOE – State Flood Control Assistance Account (all CFHMP grants) and FEMA, CAP-SSSE | On-going, perpetual in nature |                     |   | 2004       |          | F               |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals     | Mitigation Objectives  | Action | Action Item   | Estimated Cost | Funding Source  | 2009 Project Status           | 2010 Updated Status | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------|----------------------|--|--------|---|----------------|---|-------------------------------|---------------------|--|------------|----------|-----------------|
| Emergency Management Division | Goal 1: Protect Life | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.3  | Request that Governor's Office create executive order requiring state agencies to include mitigation actions into owned & leased structures upon first occupancy, into renovation of existing structures, & into the design or redesign of interior work spaces | \$0            | N/A   | On-going, perpetual in nature | New                 | New planning team member to the 2010-2013 update cycle is the Governor's Policy Advisor. EMD and other state agencies will work together to develop concepts for governor's support. | 2010       | 2013     | All             |
| Emergency Management Division | Goal 1: Protect Life | 1.3 Reduce the impacts of hazards on vulnerable populations              | 1.3.1  | Help K-12 schools and state colleges and universities develop vulnerability assessments, mitigation plans and mitigation projects to improve safety in their most vulnerable buildings.   | Unknown        | State general and capital funds, and federal hazard mitigation grants | On-going, perpetual in nature | New                 | During 2010 PDM grant cycle, OSPI and State will seek grant funding to assist local school districts to prepare mitigation plans.  | 2010       | 2013     | All             |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals         | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source   | 2009 Project Status           | 2010 Updated Status | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------|--------------------------|--|--------|--|----------------|--|-------------------------------|---------------------|--|------------|----------|-----------------|
| Emergency Management Division | Goal 1: Protect Life     | 1.4 Improve evacuation capability for tsunami at-risk coastal communities with little or no high ground. | 1.3.2  | Seek funding to implement vertical evacuation structures, including berms, towers and buildings, to protect human life from tsunamis and other hazardous events, such as storm surge and coastal flooding. | \$20 million   | Unknown  |                               | New                 |  | 2010       | 2050     | T, SS, F        |
| Emergency Management Division | Goal 2: Protect Property | 2.1 Protect critical assets  | 2.1.1  | In partnership with EMD, OFM and GA, state agencies are to prioritize structural and non-structural retrofits for critical state-owned facilities based on their vulnerability to natural hazards.         | Unknown        | Prioritization would have minimal cost. Retrofit projects could be funded with state capital funds and/or federal mitigation grants. | On-going, perpetual in nature | New                 | Will work with Governor's Policy Advisor during 2010-2013 update cycle to develop mechanism of support by Governor to enhance the intended outcome of this strategy. | 2010       | 2013     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item  | Estimated Cost   | Funding Source   | 2009 Project Status | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--------------------------|--|--------|--|--|--|---------------------|---------------------|---|------------|----------|-----------------|
| Emergency Management Division | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.2  | Develop a pilot project that analyzes vulnerability of various school construction types to earthquake damage and recommend mitigation measures for each construction type.              | Emergency management Division, OSPI, State Building Code Council | \$55,000 as of May 2010  | In-progress         | In-progress         | EMD EQ Program, WA DNR, and State Seismic Safety Committee started pilot project in 2010 to develop a methodology for statewide assessment of schools for seismic safety. | 2010       | 2013     | EQ              |
| Emergency Management Division | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.1  | Develop a pilot project that provides funding or incentives for non-structural seismic mitigation in facilities that serve vulnerable populations (e.g., children, elderly, low income). | Unknown  | State general and capital funds and federal hazard mitigation grants | Pending             | In-progress         | DSHS is lead on this action. EMD will work with DSHS on this project.   | 2004       | 2010     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item   | Estimated Cost | Funding Source   | 2009 Project Status | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--------------------------|--|--------|---|----------------|--|---------------------|---------------------|---|------------|----------|-----------------|
| Emergency Management Division | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.2  | In partnership with EMD, OFM and GA, state agencies and the state's colleges and universities should assess the seismic safety of facilities in high-risk areas and develop recommendations to mitigate seismic hazards                     | Unknown        | State general and capital funds, federal mitigation grants | In-progress         | In-progress         |   |            |          | EQ              |
| Emergency Management Division | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.3  | In partnership with EMD, OFM and GA, agencies and higher education should identify funding strategies to speed up mitigation of identified seismic hazards in vulnerable state agency facilities and the state's colleges and universities. | Unknown        | State general and capital funds, federal mitigation grants | In-progress         | In-progress         | Funding was provided to both UW and PLU during the 2007-2010 update cycle for seismic retrofits of school facilities. Efforts will continue to gain additional support for state facilities, colleges and universities. | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals         | Mitigation Objectives  | Action | Action Item  | Estimated Cost   | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--------------------------|--|--------|--|--|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Emergency Management Division | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.1  | Help communities identify repetitive and severe repetitive loss properties and obtain potential funding for mitigation for those properties. | \$50,000/ year in staff, \$500,000 or more in grants to locals for repetitive loss property acquisition per biennium | State Flood Control Assistance Account Program (all grants) and FEMA CAP-SSSE | On-going, perpetual in nature | Ongoing, perpetual in nature | EMD is hosting a SRL/RFC class in July 2010 to provide assistance and guidance to enhance involvement in grant programs.  | 2004       | 2013     | F               |
| Emergency Management Division | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.6  | Establish database to record effectiveness of hazard mitigation projects.  | \$5,000  | State general fund  | On-going, perpetual in nature | Ongoing, perpetual in nature | The 2010 SHMP will include a LAS which includes a portion of the completed projects. Additional information will be added to the database to allow continuation of the Losses Avoided Studies. This is a long term project. | 2004       | 2013     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                      | Mitigation Objectives                             | Action | Action Item  | Estimated Cost | Funding Source   | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------|---------------------------------------|---|--------|--|----------------|--|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Emergency Management Division | Goal 3: Promote a Sustainable Economy | 3.1 Provide incentives for mitigation initiatives | 3.1.1  | Provide grants, planning tools, training and technical assistance to increase the number of hazard mitigation plans and projects, especially in fast-growing communities | Unknown        | State general funds, federal mitigation grants               | On-going, perpetual in nature | Ongoing, perpetual in nature | As of 2010, all but two counties within the state either have a plan in place or have completed some level of mitigation planning efforts (99.43% of population). During 2010-2013 cycle, EMD will continue working with local jurisdictions to ensure continued coverage. | 2004       | 2013     | All             |
| Emergency Management Division | Goal 3: Promote a Sustainable Economy | 3.1 Provide incentives for mitigation initiatives | 3.1.4  | Increase the number of state agencies participating as planning partners in the State Hazard Mitigation Plan   | Minimal        | State general fund, Emergency Management Program Grant funds | On-going, perpetual in nature | Ongoing, perpetual in nature | During the 2007-2010 planning cycle, 16 new state agencies (or additional members from different divisions of already participating agencies) joined the SHMP.   | 2004       | 2010     | All             |
| Emergency Management Division | Goal 3: Promote a Sustainable Economy | 3.1 Provide incentives for mitigation initiatives | 3.1.5  | Refine the mitigation grant programs administrative plan to address mitigation planning and projects in fast-growing areas.  | Minimal        | State general fund, Emergency Management Program Grant funds |                               | New                          |  | 2010       | 2013     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives                                 | Action | Action Item   | Estimated Cost  | Funding Source  | 2009 Project Status           | 2010 Updated Status           | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|---|--------|---|---|---|-------------------------------|-------------------------------|--|------------|----------|-----------------|
| Emergency Management Division | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations             | 3.2.1  | Help state agencies develop continuity of operations and evacuation/relocation plans for critical business operations located in high-risk hazard areas, including lahar inundation zones and areas of high seismic risk. |   | State general fund, NOAA National Tsunami Hazard Mitigation Program | On-going, perpetual in nature | Ongoing, perpetual in nature  | During the 2007-2010 planning cycle, EMD created and filled a new position to facilitate COOP planning and development of corporate relations. These proved to be very effective during the disaster events occurring since the 07 plan. | 2007       |          | All             |
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.4  | Seek additional funding for maintenance and expansion of the Pacific Northwest Seismic Network (PNSN), and for deploying the Advanced National Seismic System.  | \$400,000/year (State general fund); \$1.5 million (US Geological Survey) | State general fund, US Geological Survey                            | On-going, perpetual in nature |                               | WA EMD Director supported the acquisition of the American Recovery and Reinvestment Act (ARRA) funds to increase PNSN monitoring and detection capabilities based on ANSS and local Advisory Committee recommendations.                  | 2010       |          | EQ              |
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.5  | Obtain funding to complete tsunami modeling for all coastal areas of the state, including Puget Sound.  | \$500,000   | NOAA National Tsunami Hazard Mitigation Program                     | On-going, perpetual in nature | On-going, perpetual in nature | As of May 2010, 10 tsunami inundation models have been completed; in excess of 32 evacuation brochures have been developed and distributed to at-risk communities.   | 2007       | 2013     | T               |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost     | Funding Source   | 2009 Project Status           | 2010 Updated Status | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|--|--------|--|--------------------|--|-------------------------------|---------------------|--|------------|----------|-----------------|
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose  | 5.1.6  | Evaluate local community exposure and sensitivity to the lahar threat posed by Cascade Volcanoes through advanced statistical data analysis and population modeling. | \$40,000           | EMPG   |                               | New                 |  | 2010       | 2013     | V               |
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps   | 5.2.1  | Develop and maintain an inventory of existing geographical databases for natural hazards.  | \$100,000/ year    | State general fund, US Geological Survey   | On-going, perpetual in nature | In-progress         | In conjunction with DNR, EMD has worked to develop a more detailed databases, which will ultimately be accessible to local agencies for use in development of their mitigation plans./ | 2004       |          | All             |
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.1  | Develop/ implement a coordinated state all-hazard public education strategy building on results of assessment of previous education efforts.                         | \$200,000 per year | State General Fund, Emergency Management Program Grant, HLS grant funds, NOAA Tsunami funds, Hazmat funds. | Ongoing                       | In-progress         | Videos, web-based and printed materials have been made available during 2007-2010 update cycle. EMD will continue these public education programs and campaigns.                       | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost            | Funding Source | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|--|--------|--|---------------------------|----------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.3  | Expand the concept of the disaster information clearinghouse (e.g., Nisqually Earthquake Clearinghouse) into a multi-hazard information center                         | Approx \$20K at this time | GFS (DNR)      | In-progress                   | In-progress                  | Development of an EQ Clearinghouse has been completed; however, testing and exercise of the clearinghouse remains in progress.              | 2004       |          | EQ              |
| Emergency Management Division | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.  | 5.4.1  | Research and develop the rationale for a permanent state organization (board, commission, etc.) to establish, coordinate, and evaluate state policy on seismic safety. | Not available             | GFS            | In-progress                   | In-progress                  |   |            |          | T               |
| Employment Security Division  | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  |                           |                | On-going, perpetual in nature | Ongoing, perpetual in nature | As new equipment, furniture is added or moves occur we ensure this is completed, but because new items are continually added it is ongoing. | 2004       |          | EQ              |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source           | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|--|--------|--|----------------|--------------------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Environmental Hearings Office | Goal 2: Protect Property                           | 2.1 Protect critical assets  | 2.1.19 | Obtain an alternate source of power (generator, reserve fuel, batteries) for key equipment and facilities  | <\$3,000       | General fund state       | In-progress                   | Tabled                       | Tabled due to budget reductions.  | 2009       |          | All             |
| Environmental Hearings Office | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | EHO – < \$1600 | EHO – State general fund | On-going, perpetual in nature | Ongoing, perpetual in nature | AGO - As new equipment, furniture is added or moves occur we ensure this is completed, but because new items are continually added it is ongoing. Parks - New | 2004       |          | EQ              |
| Environmental Hearings Office | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.13 | Store copies of critical contracts, documents, and computer data files off-site in a secure location.  | <\$200         | State General Fund       | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2009       |          | All             |
| Environmental Hearings Office | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.13 | Ensure all employees know how to operate the security system, know the evacuation routes from the building & meeting place, & keep emergency contact numbers current | \$0            | N/A                      | On-going, perpetual in nature | Ongoing, perpetual in nature |   | 2009       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                      | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---|--|--|--------|--|----------------|----------------|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Environmental Hearings Office           | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.14 | Periodically review plans for reporting an emergency to 911, how to invoke emergency response, how to determine need for first aid, whether it's safe for employees to continue work, and damage assessment procedures for major and minor damage                      | \$0            | N/A            | On-going, perpetual in nature | Ongoing, perpetual in nature |  | 2007       |          | All             |
| Governor's Emergency Management Council | Goal 1: Protect Life                               | 1.2 Develop or amend laws so they effectively address hazard mitigation.   | 1.2.5  | Request that Governor's Office create executive order requiring state agencies to include hazard mitigation actions into owned & leased structures upon first occupancy, into renovation of existing structures, & into the design or redesign of interior work spaces |                |                | On-going, perpetual in nature | Ongoing, perpetual in nature | This project is in coordination with other state agencies, and will be the focus of meetings during the 2010-2013 plan update cycle. | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                      | Mitigation Goals                                   | Mitigation Objectives                                 | Action | Action Item  | Estimated Cost | Funding Source | 2009 Project Status | 2010 Updated Status          | Comments | Year Added | End Date | Hazard Impacted |
|---|--|---|--------|--|----------------|----------------|---------------------|------------------------------|----------|------------|----------|-----------------|
| Governor's Emergency Management Council | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.3  | Seek additional funding for the state's geologic survey for research to improve understanding of the threats posed by earthquakes, landslides, and other geologic hazards in Washington. |                |                |                     | Ongoing, perpetual in nature |          | 2004       |          | EQ, L           |
| Governor's Emergency Management Council | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose | 5.1.4  | Seek additional funding for maintenance and expansion of the Pacific Northwest Seismic Network (PNSN), and for deploying the Advanced National Seismic System.                           |                |                |                     | Ongoing, perpetual in nature |          | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                         | Mitigation Goals                                   | Mitigation Objectives   | Action | Action Item  | Estimated Cost | Funding Source                                 | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|--|--|---|--------|--|----------------|--|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Governor's Emergency Management Council    | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.                             | 5.4.1  | Research and develop the rationale for a permanent state organization (board, commission, etc.) to establish, coordinate, and evaluate state policy on seismic safety. | Not available  | GFS  | In-progress                   |                              |  | 2004       |          | EQ              |
| Governor's Office of Regulatory Assistance | Goal 2: Protect Property                           | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding. | 2.3.2  | Streamline the permitting and funding processes for flood damage reduction and stream improvement projects.  |                | State Flood Control Assistance Account Program | On-going, perpetual in nature | Ongoing, perpetual in nature | This project is in coordination with DOE and EMD, and will again be reviewed during the 2010-2013 plan update process. | 2007       |          | F               |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                  | Mitigation Goals         | Mitigation Objectives   | Action | Action Item   | Estimated Cost | Funding Source   | 2009 Project Status           | 2010 Updated Status | Comments   | Year Added | End Date | Hazard Impacted |
|-------------------------------------|--------------------------|---|--------|---|----------------|--|-------------------------------|---------------------|--|------------|----------|-----------------|
| Higher Education Coordinating Board | Goal 2: Protect Property | 2.2 Protect and preserve facility contents                    | 2.2.3  | In partnership with EMD, OFM and GA, agencies and higher education should identify funding strategies to speed up mitigation of identified seismic hazards in vulnerable state agency facilities and the state's colleges and universities. | Unknown        | State general and capital funds, federal mitigation grants                 | In-progress                   | In-progress         |  | 2004       |          |                 |
| Liquor Control Board                | Goal 1: Protect Life     | 1.1 Improve systems that provide warning & EM Communications. | 1.1.7  | Enhance and ensure interoperable communication  | Not available  | Urban Areas Security Initiative Grant, self-sustaining revenue state funds | On-going, perpetual in nature |                     | LCB, removed 2010 - Our Agency COOP continues to mature. We had to refocus efforts toward H1N1 in the past year. Opportunity for the command and authority improvements. | 2007       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency   | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost         | Funding Source  | 2009 Project Status           | 2010 Updated Status | Comments | Year Added | End Date | Hazard Impacted |
|----------------------|--|--|--------|---|------------------------|---|-------------------------------|---------------------|----------|------------|----------|-----------------|
| Liquor Control Board | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.1  | Help state agencies develop continuity of operations and evacuation/relocation plans for critical business operations located in high-risk hazard areas, including lahar inundation zones and areas of high seismic risk. |                        | State general fund, NOAA National Tsunami Hazard Mitigation Program | On-going, perpetual in nature |                     |          | 2004       |          |                 |
| Liquor Control Board | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose  | 5.1.6  | Become familiar with tsunami and volcano warning signs and community emergency plans  | N/A                    | N/A   | On-going, perpetual in nature |                     |          | 2009       |          |                 |
| Liquor Control Board | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.4  | Disseminate disaster preparedness and emergency information to constituents (e.g., faculty, staff, student).  | Liquor Board - \$1,500 |   | On-going, perpetual in nature |                     |          | 2007       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency          | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                                | Funding Source                   | 2009 Project Status           | 2010 Updated Status          | Comments           | Year Added | End Date | Hazard Impacted |
|-----------------------------|--|--|--------|--|---|----------------------------------|-------------------------------|------------------------------|--------------------|------------|----------|-----------------|
| Liquor Control Board        | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.5  | Implement Risk Reduction Campaign  | UW - Not availableLiquor Board - \$1,500/year | UW - Internal grantLiquor Board, | On-going, perpetual in nature |                              |                    | 2007       |          |                 |
| Liquor Control Board        | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.13 | Ensure all employees know how to operate the security system, know the evacuation routes from the building & meeting place, & keep emergency contact numbers current | \$0   | N/A                              | On-going, perpetual in nature |                              |                    | 2009       |          |                 |
| Marine Employees Commission | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.10 | Ensure all staff have updated Red Cross training for emergency preparedness.   | \$150   | GFS                              | On-going, perpetual in nature | Ongoing, perpetual in nature | Update during 2010 | 2009       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                           | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost                              | Funding Source                             | 2009 Project Status           | 2010 Updated Status          | Comments       | Year Added | End Date | Hazard Impacted |
|--|--|--|--------|--|---|--|-------------------------------|------------------------------|----------------|------------|----------|-----------------|
| Marine Employees Commission                  | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.11 | Ensure office emergency supply kit is updated (3-day survival kits for DIS).   | MEC-\$50, DIS-\$2500 per year, ERFC - \$200 | MEC-State general fund, DIS-DR Cost Center | On-going, perpetual in nature | Ongoing, perpetual in nature | Checked 7/1/09 | 2007       |          |                 |
| NOAA - National Oceanic & Atmospheric Admin. | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications.  | 1.1.2  | Help National Weather Service expand NOAA Weather Radio coverage, especially in high terrain areas.  | \$50,000 for two stations                   | NOAA National Weather Service, local funds | On-going, perpetual in nature |                              |                | 2004       |          |                 |
| Office of Financial Management               | Goal 1: Protect Life                               | 1.2 Develop or amend laws so they effectively address hazard mitigation.   | 1.2.5  | Request that Governor's Office create executive order requiring state agencies to include hazard mitigation actions into owned & leased structures upon first occupancy, into renovation of existing structures, & into the design or redesign of interior work spaces | \$0   | N/A  | On-going, perpetual in nature |                              |                | 2004       |          |                 |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source     | 2009 Project Status | 2010 Updated Status | Comments | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|--|--------|--|----------------|--------------------|---------------------|---------------------|----------|------------|----------|-----------------|
| Office of Lieutenant Governor | Goal 2: Protect Property                           | 2.2 Protect and preserve facility contents   | 2.2.1  | Store copies of critical contracts, documents, and computer data files off-site in a secure location.  | <\$200         | State General Fund |                     | New                 |          | 2010       | 2013     | All             |
| Office of Lieutenant Governor | Goal 3: Promote a Sustainable Economy              | 3.1 Continue critical business operations  | 3.2.1  | Develop and implement COOP through mutual aid agreements, redundant systems, backup of records, internal accounting practices, asset inventory, and copies of critical documents | Unknown        | GFS/HM Grants      |                     | New                 |          | 2010       | 2013     | All             |
| Office of Lieutenant Governor | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.6  | Ensure all employees are knowledgeable about agency emergency procedures (including evacuation routes) and maintain emergency supplies at desk                                   | Unknown        | GFS                |                     | New                 |          | 2010       | 2013     | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                             | Mitigation Goals         | Mitigation Objectives                                       | Action | Action Item   | Estimated Cost | Funding Source  | 2009 Project Status           | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|--|--------------------------|---|--------|---|----------------|---|-------------------------------|---------------------|---|------------|----------|-----------------|
| Office of Superintendent of Public Instruction | Goal 1: Protect Life     | 1.3 Reduce the impacts of hazards on vulnerable populations | 1.3.1  | Help K-12 schools and state colleges and universities develop vulnerability assessments, mitigation plans and mitigation projects to improve safety in their most vulnerable buildings. | 550,000        | State general and capital funds, and federal hazard mitigation grants | On-going, perpetual in nature | New                 | During 2010 PDM grant cycle, OSPI and State will seek grant funding to assist local school districts to prepare mitigation plans. | 2010       | 2013     | All             |
| Office of Superintendent of Public Instruction | Goal 2: Protect Property | 2.1 Protect critical assets                                 | 2.1.2  | Develop a pilot project that analyzes vulnerability of various school construction types to earthquake damage and recommend mitigation measures for each construction type.             | Unknown        | Unidentified at this time   | In-progress                   |                     |   | 2004       |          |                 |
| Parks and Recreation                           | Goal 1: Protect Life     | 1.3 Reduce the impacts of hazards on vulnerable populations | 1.3.6  | Establish team to review and identify vulnerabilities in Emergency Plans.   |                |   |                               | New                 |   | 2010       |          |                 |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency   | Mitigation Goals                      | Mitigation Objectives  | Action | Action Item   | Estimated Cost | Funding Source         | 2009 Project Status | 2010 Updated Status | Comments                               | Year Added | End Date | Hazard Impacted |
|----------------------|---------------------------------------|--|--------|---|----------------|------------------------|---------------------|---------------------|--|------------|----------|-----------------|
| Parks and Recreation | Goal 2: Protect Property              | 2.1 Protect critical assets  | 2.1.26 | Hire a structural engineer to determine structural soundness and earthquake readiness of state park owned facilities. | Unknown        | Grants, general budget |                     | New                 |  | 2010       |          | EQ              |
| Parks and Recreation | Goal 2: Protect Property              | 2.2 Protect and preserve facility contents   | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking   | Unknown        |                        |                     | New                 |  | 2010       |          | EQ              |
| Parks and Recreation | Goal 2: Protect Property              | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.10 | Hire engineer to conduct Flood Evaluation Study to develop mitigation actions within flood plains.                    | Unknown        | Grants                 |                     | New                 |  | 2010       |          | F               |
| Parks and Recreation | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.3  | Conduct periodic review or an update business continuity/resumption or disaster recovery plans                        |                |                        | Ongoing             | New                 | Continue business critical operations. | 2010       |          | All             |
| Parks and Recreation | Goal 3: Promote a Sustainable Economy | 3.2 Continue critical business operations  | 3.2.12 | Obtain funding to support new Emergency Management positions.   | Unknown        | Grants, general budget |                     | New                 |  | 2010       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency          | Mitigation Goals         | Mitigation Objectives   | Action | Action Item   | Estimated Cost               | Funding Source  | 2009 Project Status           | 2010 Updated Status | Comments   | Year Added | End Date | Hazard Impacted |
|-----------------------------|--------------------------|---|--------|---|------------------------------|---|-------------------------------|---------------------|--|------------|----------|-----------------|
| PNWSN                       | Goal 1: Protect Life     | 1.1 Improve systems that provide warning & EM Communications. | 1.1.4  | Develop a plan to install satellite-based, real-time tsunami and earthquake information systems in county and city emergency operation centers.                             | \$25,000 as of February 2008 | State general fund, NOAA National Tsunami Hazard Mitigation Program | On-going, perpetual in nature |                     |  | 2004       |          | T               |
| State Building Code Council | Goal 2: Protect Property | 2.1 Protect critical assets                                   | 2.1.2  | Develop a pilot project that analyzes vulnerability of various school construction types to earthquake damage and recommend mitigation measures for each construction type. | Unknown                      | Unidentified at this time   | In-progress                   | Other               | The SBCC does not have this item on their work plan. | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency   | Mitigation Goals                                   | Mitigation Objectives                                       | Action | Action Item   | Estimated Cost            | Funding Source   | 2009 Project Status   | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted  |
|--|--|---|--------|---|---------------------------|--|---|------------------------------|---|------------|----------|------------------|
| State Building Code Council, with Washington Association of Building Officials | Goal 1: Protect Life                               | 1.4 Strengthen state & local building codes and enforcement | 1.4.1  | Pursue certification of building inspectors through code organizations and provide continuing education to improve the quality of building inspections. | \$750,000 per fiscal year | Private/local  | Ongoing; training offered throughout state; mandatory certification discussed at legislature but not passed yet | Ongoing, perpetual in nature | Washington Assoc of Building Officials has several programs available for building officials and inspectors | 2004       |          | EQ, F, LS, SS, V |
| State Geographic Information Council   | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps          | 5.2.1  | Develop and maintain an inventory of existing geographical databases for natural hazards.   | \$100,000/year            | State general fund, US Geological Survey                       | On-going, perpetual in nature   |                              |   | 2004       |          | All              |
| University of Washington   | Goal 1: Protect Life                               | 1.3 Reduce the impacts of hazards on vulnerable populations | 1.3.2  | Develop Mass Care and Shelter Plan and capabilities   | 70,000 - 80,000           | Not identified. Requested funding under UASI 06 and 07, denied | Pending   | Pending                      | Funding source not identified.  | 2004       |          | All              |
| University of Washington   | Goal 1: Protect Life                               | 1.3 Reduce the impacts of hazards on vulnerable populations | 1.3.3  | Emphasize the consideration of life safety issues and risks in capital budget process   | Unknown                   | Capital Budget, Ongoing operational budgets                    | On-going, perpetual in nature   | Ongoing, perpetual in nature | Consider building conditions when locating functions.   | 2004       |          | All              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals     | Mitigation Objectives          | Action | Action Item  | Estimated Cost  | Funding Source         | 2009 Project Status               | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|--------------------------|----------------------|--------------------------------|--------|--|---|------------------------|-----------------------------------|------------------------------|---|------------|----------|-----------------|
| University of Washington | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.10 | Test individual Unit Response Center plans.                | Unknown   | Funding not determined | In-progress                       | Pending                      | Funding source not identified.  | 2004       |          | All             |
| University of Washington | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.11 | Expand and support Campus Emergency Response Team program. |   | Funding not determined | Other (explain in comments field) | Other                        | Grant funding for CERT ran out. No other funding available at this time | 2004       |          | All             |
| University of Washington | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.12 | Expand and enhance Unit Response Centers.                  | Unknown   | Not identified         | Other (explain in comments field) | Ongoing, perpetual in nature | Funding source not identified.  | 2004       |          | All             |
| University of Washington | Goal 1: Protect Life | 1.5 Train emergency responders | 1.5.13 | Conduct ATC 20 Training.                                   | \$3,000-\$4,000 in annual operational support to maintain current ATC 20 teams. | Funding not determined | On-going, perpetual in nature     | In-progress                  | Funding source not identified.  | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item   | Estimated Cost   | Funding Source                     | 2009 Project Status               | 2010 Updated Status          | Comments                       | Year Added | End Date | Hazard Impacted |
|--------------------------|--------------------------|--|--------|---|------------------|------------------------------------|-----------------------------------|------------------------------|--------------------------------|------------|----------|-----------------|
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.2  | In partnership with EMD, OFM and GA, state agencies and the state's colleges and universities should assess the seismic safety of facilities in high-risk areas and develop recommendations to mitigate seismic hazards | Unknown          | Funding source not identified      | In-progress                       | Pending                      | Not initiated.                 | 2010       |          | EQ              |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.4  | Develop a real-time monitoring program (SHAKECAST) for critical state bridges and make the data available for use in regional shake maps  | \$60,000 to date | State general fund; federal grants | On-going, perpetual in nature     | In-progress                  | Working w/USGS.                | 2004       |          | EQ              |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking   | Unknown          | Funding source not identified      | On-going, perpetual in nature     | Ongoing, perpetual in nature | Not initiated.                 | 2010       |          | EQ              |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.6  | Consolidate information on contents of significant value.   | Unknown          | Funding source not identified      | Other (explain in comments field) | Pending                      | Funding source not identified. | 2004       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals         | Mitigation Objectives  | Action | Action Item  | Estimated Cost | Funding Source          | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|--------------------------|--------------------------|--|--------|--|----------------|-------------------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents   | 2.2.7  | Replace Nisqually EQ-damaged and non-compliant library shelving.                 | \$2.6 million  | Requested state funding | Pending                       | In-progress                  | Local funding sources found.  | 2004       |          | EQ              |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents   | 2.2.8  | Burke Museum replace shelving with seismically capable shelving.                 | \$950,000      | FEMA HMGP funds         | Pending                       | In-progress                  | Local funding sources found.  | 2009       |          | EQ              |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents   | 2.2.9  | Assess utility and network systems, capabilities, and vulnerabilities.           | \$80,000       | Unknown                 | On-going, perpetual in nature | Ongoing, perpetual in nature | Funding source not identified.  | 2004       |          | All             |
| University of Washington | Goal 2: Protect Property | 2.2 Protect and preserve facility contents   | 2.2.17 | Seal parking structure to correct water leakage into basement level data center. | Unknown        | Unknown                 | On-going, perpetual in nature | New                          | Funding source not identified.  | 2010       |          | F               |
| University of Washington | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.7  | Expand Forest or Landscape management plan                                       | Not available  | TBD                     | On-going, perpetual in nature | Ongoing, perpetual in nature | 500+ facilities vulnerable to windstorms. Pack Forest, ONRC and FHL at risk for wildfire. | 2004       |          | F               |
| University of Washington | Goal 2: Protect Property | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.9  | Continue abatement of friable asbestos.  | Not available  | Requested state funding | On-going, perpetual in nature | Ongoing, perpetual in nature | Funding source not identified.  | 2004       |          | All             |



## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost  | Funding Source                            | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|--------------------------|--|--|--------|--|---|---|-------------------------------|------------------------------|--|------------|----------|-----------------|
| University of Washington | Goal 2: Protect Property                           | 2.3 Reduce repetitive and severe repetitive losses, including those caused by flooding | 2.3.10 | Tree Stability Investigation to determine susceptibility to interior rot, soil, and instability or soil saturation.  | Unknown   | Funding source not identified             | On-going, perpetual in nature | New                          | Funding source not identified.   | 2010       |          | F               |
| University of Washington | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.4  | Establish Business Continuity Management Program   | Not available   | Biennium UW Operational 2007-2009 Request | Pending                       | Ongoing, perpetual in nature | Limited pilot program with four units has been initiated with grant funds. | 2004       |          | All             |
| University of Washington | Goal 3: Promote a Sustainable Economy              | 3.3 Form partnerships to leverage & share resources                                    | 3.3.1  | Establish arrangements with off-site organizations to share facilities, personnel and equipment in event of a disaster.  | Unknown   | UW Funding not determined                 | On-going, perpetual in nature | Pending                      | Funding source not identified.   | 2007       |          | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.1 Understand natural hazards and the risk they pose                                  | 5.1.4  | Seek additional funding for maintenance and expansion of the Pacific Northwest Seismic Network (PNSN), and for deploying the Advanced National Seismic System. | \$400,000/year (State general fund); \$1.5 million (US Geological Survey) | State general fund, US Geological Survey  | On-going, perpetual in nature | In-progress                  | Working w/USGS.  | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost         | Funding Source                | 2009 Project Status               | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|--------------------------|--|--|--------|---|------------------------|-------------------------------|-----------------------------------|------------------------------|--|------------|----------|-----------------|
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps   | 5.2.4  | Conduct Risk Analysis through the use of spatial technologies   | Not available          | Funding source not identified | Other (explain in comments field) | Pending                      | Funding source not identified.                       | 2004       |          | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.2 Improve hazard information, databases and maps   | 5.2.5  | Establish official digital latitude and longitude coordinates for University owned and leased facilities and infrastructure | Not available          | Not identified                | Other (explain in comments field) | Ongoing, perpetual in nature | Funding source not identified.                       | 2004       | 2010     | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.4  | Disseminate disaster preparedness and emergency information to constituents (e.g., faculty, staff, student).                | UW - \$20,000 annually | State funding and grants      | On-going, perpetual in nature     | Ongoing, perpetual in nature | Link from homepage to Emergency Management homepage. | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency       | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item  | Estimated Cost     | Funding Source   | 2009 Project Status               | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|--------------------------|--|--|--------|--|--------------------|--|-----------------------------------|------------------------------|--|------------|----------|-----------------|
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.5  | Implement Risk Reduction Campaign  | UW - Not available | UW - Internal grant                                    | On-going, perpetual in nature     | Ongoing, perpetual in nature | Internal grant.  | 2004       |          | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.  | 5.4.3  | Continue implementation of Nonstructural Mitigation measures in critical university facilities | N/A                | Minor Capital Safety UW Internal grant Program Renewal | On-going, perpetual in nature     | In-progress                  | Local funding sources found.   | 2004       |          | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.  | 5.4.4  | Improve Financing for Catastrophic Losses.   | N/A                | Funding source not identified                          | Other (explain in comments field) | Pending                      | Funding source not identified.                                       | 2004       |          | All             |
| University of Washington | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.  | 5.4.5  | Develop Debris Management Plan   | N/A                | Funding not determined                                 | On-going, perpetual in nature     | In-progress                  | Seattle campus attended EMI Debris Management course in summer 2006. | 2004       |          | EQ, F, LS, SS   |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency            | Mitigation Goals                                   | Mitigation Objectives   | Action | Action Item   | Estimated Cost               | Funding Source  | 2009 Project Status           | 2010 Updated Status | Comments  | Year Added | End Date | Hazard Impacted |
|-------------------------------|--|---|--------|---|------------------------------|---|-------------------------------|---------------------|---|------------|----------|-----------------|
| University of Washington      | Goal 5: Increase Public Preparedness for Disasters | 5.4 Develop new policies to enhance mitigation initiatives.   | 5.4.6  | Assess impacts and conditions to University transportation system in a disaster.  | Not available                | Funding not determined  | On-going, perpetual in nature | In-progress         | A study in 2004 completed for the Seattle Campus, yet no plan exists. | 2004       |          | All             |
| USGS - U.S. Geological Survey | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications. | 1.1.3  | Investigate the feasibility of developing a real-time landslide warning system along key transportation routes.                                 | Unknown at present           | State general fund, US Geological Survey                            | On-going, perpetual in nature |                     |   | 2004       |          | L               |
| USGS - U.S. Geological Survey | Goal 1: Protect Life                               | 1.1 Improve systems that provide warning & EM Communications. | 1.1.4  | Develop a plan to install satellite-based, real-time tsunami and earthquake information systems in county and city emergency operation centers. | \$25,000 as of February 2008 | State general fund, NOAA National Tsunami Hazard Mitigation Program | On-going, perpetual in nature |                     |   | 2004       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                      | Mitigation Goals         | Mitigation Objectives                      | Action | Action Item  | Estimated Cost             | Funding Source  | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---|--------------------------|--|--------|--|----------------------------|---|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Utilities and Transportation Commission | Goal 1: Protect Life     | 1.5 Train emergency responders             | 1.5.9  | Provide training to staff on topics such as preparedness, response and disaster recovery, First Aid, Cardio-Pulmonary Resuscitation, and use of Automated External Defibrillator | ERFC - \$250, UTC \$550/yr | ERFC, Revenue - State general fund, UTC - Public services revolving fund, L & I | On-going, perpetual in nature | Ongoing, perpetual in nature | The safety committee continues to ensure that they remain active to provide safety features for the UTC | 2004       |          | All             |
| Utilities and Transportation Commission | Goal 2: Protect Property | 2.1 Protect critical assets                | 2.1.11 | Review procedures to ensure furniture acquisitions, building remodels and other purchases consider seismic hazards.  | No incremental cost        |   | On-going, perpetual in nature | Ongoing, perpetual in nature | Always taken into consideration when purchases are made   | 2007       |          | EQ              |
| Utilities and Transportation Commission | Goal 2: Protect Property | 2.2 Protect and preserve facility contents | 2.2.5  | Secure equipment, furniture and/or supplies from the impact of ground shaking  | \$5,000                    | Public Service Revolving Fund, hazard mitigation grant                          |                               |                              |   | 2009       |          | EQ              |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                      | Mitigation Goals                                   | Mitigation Objectives  | Action | Action Item   | Estimated Cost      | Funding Source                | 2009 Project Status           | 2010 Updated Status          | Comments  | Year Added | End Date | Hazard Impacted |
|---|--|--|--------|---|---------------------|-------------------------------|-------------------------------|------------------------------|---|------------|----------|-----------------|
| Utilities and Transportation Commission | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.3  | Conduct periodic review or an update business continuity/resumption or disaster recovery plans  |                     |                               | Ongoing                       | Ongoing, perpetual in nature | Plans are reviewed yearly   | 2007       |          | All             |
| Utilities and Transportation Commission | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.4  | Disseminate disaster preparedness and emergency information to constituents (e.g., faculty, staff, student).  | \$150/year          | Public Service Revolving Fund |                               |                              |   | 2007       |          | All             |
| Utilities and Transportation Commission | Goal 5: Increase Public Preparedness for Disasters | 5.3 Improve public knowledge of hazards and protective measures so individuals appropriately respond during hazard events. | 5.3.7  | Facilitate the review of existing emergency response plans for potential enhancement with respect to natural and man-made Hazard Mitigation activities. | No incremental cost | N/A                           | On-going, perpetual in nature | Ongoing, perpetual in nature | The safety committee continues to ensure that they remain active to provide safety features for the UTC | 2009       |          | All             |
| WA State Horse Racing Commission        | Goal 3: Promote a Sustainable Economy              | 3.2 Continue critical business operations  | 3.2.3  | Conduct periodic review or an update business continuity/resumption or disaster recovery plans  | No incremental cost |                               | Ongoing                       |                              |   | 2007       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency                 | Mitigation Goals         | Mitigation Objectives  | Action | Action Item   | Estimated Cost       | Funding Source                          | 2009 Project Status           | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|------------------------------------|--------------------------|--|--------|---|----------------------|---|-------------------------------|------------------------------|--|------------|----------|-----------------|
| Washington Horse Racing Commission | Goal 2: Protect Property | 2.2 Protect and preserve facility contents                               | 2.2.13 | Store copies of critical contracts, documents, and computer data files off-site in a secure location.   | <\$200               | State General Fund                      | On-going, perpetual in nature | Ongoing, perpetual in nature | Copies of records are stored at HQ building. Data files are stored on servers on location, at HQ, and another location in WA.            | 2009       |          | All             |
| Washington State Patrol            | Goal 1: Protect Life     | 1.2 Develop or amend laws so they effectively address hazard mitigation. | 1.2.3  | Develop and promote recommendations for local ordinances to prevent fires in interface areas resulting from fireworks, debris burning, campfires, and other human-caused sources. | DNR - \$100,000/year | DNR fire prevention budget              | On-going, perpetual in nature | Ongoing, perpetual in nature | Legislature is considering several bills which would create codes for the wild land urban interface.                                     | 2004       |          | WF              |
| Washington State Patrol            | Goal 1: Protect Life     | 1.5 Train emergency responders   | 1.5.1  | Deliver standardized training on wildland fires to firefighters responding to fires in interface areas.   | \$2,400,000          | DNR Resource Protection training budget | On-going, perpetual in nature | Tabled                       | In coordination with the Department of Natural Resources, we have an agreement that they will provide all of the wildland fire training. | 2004       |          | WF              |
| Wenatchee Valley College           | Goal 1: Protect Life     | 1.1 Improve systems that provide warning & EM Communications.            | 1.1.9  | Install building intercom systems   |                      |   |                               | New                          |  | 2010       |          | All             |

## 2010 MITIGATION STRATEGIES WITH 2009 UPDATES

| Responsible Agency              | Mitigation Goals         | Mitigation Objectives   | Action | Action Item   | Estimated Cost   | Funding Source   | 2009 Project Status  | 2010 Updated Status          | Comments   | Year Added | End Date | Hazard Impacted |
|---------------------------------|--------------------------|---|--------|---|--|--|--|------------------------------|--|------------|----------|-----------------|
| Western Washington University   | Goal 2: Protect Property | 2.1 Protect critical assets                                   | 2.1.9  | Renovate Carver Gymnasium, Art Annex, Miller Hall, and Higginson Hall, including seismic upgrade to 100 percent of ATC 22 minimum life safety standards | Carver Hall – \$51.9 million<br>Art Annex – \$4.8 million<br>(\$291,570 estimated for seismic retrofit)<br>no funds avail.<br>Miller Hall – \$58 million | State capital funds  | On-going, perpetual in nature  | In-progress                  | Miller Hall renovation is in construction: end date 6-30-2011. Carver design was not funded for 09-11. | 2004       | 2011     | EQ              |
| Yakima Valley Community College | Goal 1: Protect Life     | 1.1 Improve systems that provide warning & EM Communications. | 1.1.9  | Install building intercom systems   |  |  |  |                              |  | 2009       |          | All             |
| Yakima Valley Community College | Goal 2: Protect Property | 2.1 Protect critical assets                                   | 2.1.7  | Continue seismic retrofit of critical facilities and infrastructure, including Padeleford Parking Structure and Pedestrian Walkway                      | Not available; Padeleford \$650,000  | State funding requested as part of the "Restore the Core" program; Padeleford FEMA PDM Funding | Ongoing; Padeleford project began 10/08 – in design review and pre-construction phase. |                              |  | 2009       |          | EQ              |
| Yakima Valley Community College | Goal 2: Protect Property | 2.1 Protect critical assets                                   | 2.1.8  | Purchase a portable generator for emergency operation center  |  |  |  | Ongoing, perpetual in nature |  | 2010       |          | All             |